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ESSAYS
ON SEVERAL SUBJECTS.

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ESSAYS

ON THE

PERCEPTION OF AN EXTERNAL UNIVERSE,

AND

OTHER SUBJECTS

6.1
CONNECTED WITH

THE DOCTRINE OF CAUSATION.

BY

LADY MARY SHEPHERD,

AUTHOR OF

"An Essay upon the Relation of Cause and Effect."

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* This and the four preceding essays are against several modern atheists.

ERRATA.

Page. Line.

- 36, 26, *for* "heaven" *read* "haven."
- 61, 23, *for* "unknown causes" *read* "ideas of the unknown causes."
- 87, 5, *for* "does" *read* "do."
- 95, In note, *for* "sec. 6, ch. 6," *read* "sec. 7, ch. 5."
- 100, After "Recapitulation" *read* "page 182, and ch. 7, sec 5.*"
- 102, 22, " * See p. 54, 55."
- 107, 5, " * p. 54, 55, and 'Essay on the Nature of the Five Organs of Sense.'"
- 109, 5, " * See Reid's Inquiry, ch. 5, sec. 7."
- 126, 12, In the note after "mind" *read* "Vol. 2, ch. 4."
- 203, 6, After "objects" *read* " * See p. 220, &c."
- 215, 11, *for* "substance" *read* "a substance."
- 229, Last line in note, *for* "note O" *read* "note G." †
- 247, 24, After Mr. Stewart, *read* " * Essays," and "Elements of the Philosophy of the Human Mind, vol. 3, addenda," ref. to p. 92, 1st edit. p. 93, 6th edit.
- 249, Last line, *for* "note O" *read* "note G."
- 277, 9, *for* "universalle" *read* "universelle."
- 284, 16, *for* "whole" *read* "wholes."
- 297, 15, After "doctrine" *read* "of causation."
- 307, 17, *for* "disceptibility" *read* "discerptibility."
- 370, 23, *for* "consider" *read* "attribute."
- 373, 17, *for* "conducted" *read* "concluded."—*Note, for*
"Dr. Stewart" *read* "Mr. D. Stewart."

† This is an error of consequence as it relates to Mr. D. Stewart's doctrine of *External Perception*.

PART I.

AN ESSAY

ON THE

ACADEMICAL OR SCEPTICAL PHILOSOPHY,

&c.

PREFACE TO THE ESSAY

ON THE

ACADEMICAL OR SCEPTICAL PHILOSOPHY.

It was my intention in a former publication * to have introduced an appendix containing some inquiry into the nature and proof of the existence of matter, and of an external universe; deeming it necessary in order to the more enlarged comprehension of *that manner of action exerted in causation which renders it “a producing principle,”* to have a right understanding of the idea of an *external* object; but finding the notions which suggested themselves would exceed the limits of that work, and of sufficient interest to be pursued beyond

* An essay upon the relation of cause and effect.

its immediate purpose, I have ventured to unfold them in the following essay.

Now the question concerning the *nature* and *reality* of external existence can only receive a satisfactory answer, derived from a knowledge of *the relation of Cause and Effect*. The conclusions therefore, deduced from *some* of the reasonings used in the former essay are the instruments employed in conducting the argument in this;—nevertheless it will not be reasoning in a circle, if by carefully defining the nature of *internal* and *external* existence of *objects perceived* and *unperceived*, we gain thereby clearer ideas of the *method and action of causation*. For in this discussion, taking the two essays together as one whole, the knowledge of Cause is supposed to be first, because previous to any belief in exteriority, one *internal* object would appear so necessary to another, that without its presence it would not arise; also every change of perception would be observed

as a change of that being which was already in existence:—the action of *beginning* any existence would therefore appear as a quality of *self*, or the *accident* of a continuing existence; and it would be a manifest contradiction, to predicate of such a quality its self-existence. Thus, *to begin of itself*, would appear to every child under the faintest and most indistinct form of latent conception, to be a contradiction. But that *one object is necessary to the existence of another*, (by some kind or manner of action) and that *qualities cannot begin of themselves*, are those primæval elements of the doctrine of cause, which regulate every opinion speculative and practical.

Then, secondly, those *causes* of our ideas, which are neither our senses nor our minds, are deduced *by inference* from a comparison of the ideas which experience yields, *by that method of argument which it is the intent of this Essay to show*.

Whilst thirdly, the *manner of the action of cause*, by which it is a PRODUCING PRINCIPLE, and has a necessary and invariable connection with its effects, becomes elicited by a separation of the ideas of the exterior causes of our sensations, and the ideas of the sensations themselves. Thus showing there are *two sets of OBJECTS in nature*; viz. the EXTERIOR OBJECTS, the acting causes of nature, independant of the senses; the INTERNAL OBJECTS, the sensible effects of these, when meeting with the human senses, and determining their specific qualities upon the mind.

The exhibition of the justness of this last conclusion, although hinted at in "*The essay on cause and effect*," p. 42, could not be fully shown, until all sensations, all sensible qualities whatever, were exposed as themselves but a series of successive effects.

Thus the subjects of the two Essays are capable of being considered inde-

pendantly, yet of throwing a mutual light upon each other. To analyse the operations of our minds in such a manner as shall distinctly show the limit of “ what we know of body,” will materially help the mind in forming an idea of how it operates when “ acting as a cause;” as also on the other hand, when the mind perceives by what passes within itself, that *no* quality, idea, or being whatever, can *begin* its own existence, it not only perceives the general necessity of a cause for every effect, but also thence deduces, that there must necessarily be a continually existing cause, for that *constantly recurring effect*, our *perception of extension* ;* or in other words, the *existence of that*, which though *unperceived* and *independent*, merits the appellation of “ body.” The analysis, therefore, of the operations of mind from infancy, throws light upon the knowledge we have of cause and effect; and the relation of cause and

* “ Essay on Cause and Effect,” p. 34.

effect when fully known and established, affords the only method of *proof* in our power, for the knowledge of external existence.

I propose in this essay as in the former one, to consider Mr. Hume's notions as expressed first of all in his "*Treatise upon Human Nature*," and afterwards as resumed in his essay entitled, "On the Academical or Sceptical Philosophy;" yet to conduct the argument rather by stating what I conceive to be truth, than by a minute examination of his reasoning. In doing this if any thoughts should appear of such a nature as to afford a prospect that the doctrine first set up by Bishop Berkeley, is capable of being modified in such a manner as not to be at variance with the common experience of life, much less to afford a supply of arguments in favour of atheism, the author will be rewarded for the labour of thought which has been found necessary in the consideration of it.

AN ESSAY,

&c.

INTRODUCTORY CHAPTER.

SECTION I.

The Question stated.

THE question intended to be investigated in the following pages is thus stated in the “Treatise on Human Nature,”* “Why we attribute a *continued* existence to objects even when they are not present to the senses?” And, “why we suppose them to have an existence distinct from the mind ; i. e. *external in their position*, and *independant* in their existence and operation?” Mr. Hume argues at great length, that it is *not* by means either of the “*senses*, or of *reason*,” that “we are induced to believe in the existence

* Part 4, sec. 2.

“of body ;” but that we gain the notion entirely by an operation of the “*imagination*” which has “a propensity to “*feign* the continued existence of all sensible objects, and as this propensity “arises from some lively impressions on “the memory, it bestows a vivacity on “that fiction, or in other words, makes “us believe the continued existence of “body.” It is not my intention to analyze Mr. Hume’s reasoning on this subject, which I conceive to be altogether erroneous, and which it would be very tedious to examine ; I prefer, therefore, answering the question as it stands, according to my own views of it, setting down what experience and reflection suggest to my mind as the operations of nature in this matter ; and I shall endeavour to point out what complication of objects, and what arrangement of them is necessary towards that result which appears to us from its familiarity and constancy of appearance, perfectly simple and easy to be understood. But first, I shall shortly observe, that Mr.

Hume's error in general is similar to that in the essay on "necessary connexion," viz. of substituting "*imagination*" and "*vivacity of thought*," as a ground of belief, instead of "*reason*." "An idea," says Mr. Hume, "acquires a vivacity by its relation to some present impression," and this at once, according to him, forms the whole ground upon which our "belief" rests, of the necessity there is, that *similar effects* should flow from *similar causes*, and that *objects should continue to exist unperceived*. It is my intention to shew here, as upon a former occasion, that as the very *act of reasoning consists in drawing out to observation the relations of things as they are included in their juxta-position to each other*; so upon this question, concerning our "knowledge of the existence of body," it is REASON, which taking notice of the *whole* of our perceptions, and of their *mutual relations*, affords those proofs "of body" which first generate, and after examination will substantiate, the belief of its existence.

The question proposed in the treatise is resumed in the essay on “ the Academical or Sceptical Philosophy,” thus : “ By what argument can it be proved, “ that the perceptions of the mind must “ be caused by external objects ?” and “ reason” is there said also, “ not to “ have it in her power to find any convincing argument to prove, that the “ perceptions are connected with any external objects ;” but that on the contrary, “ the slightest philosophy teaches us, that the senses are not able to produce any immediate intercourse between the mind and the object ; for that the table which we see seems to diminish as we remove further from it, but that the real table which exists independant of us suffers no alteration.”

It will be seen by any intelligent reader, accustomed to discussions of this sort, that the consideration of the question, as stated in Mr. Hume’s treatise, and the notions I have thence deduced will contain a doctrine capable of answering any errors of Dr. Berke-

ley's* on the same subject, whose opinions, which originally had been intended as the foundation of the most secure belief in *Deity*, Mr. Hume has endeavoured to convert, by an enlarged application of them, (by an induction of the non-existence of mind as well as matter,) into a source of universal scepticism.

The incompleteness of Dr. Reid's answer to these authors, will also be perceived in the course of the argument here used against them; it will be seen that he cuts the knot instead of untying it, by referring a belief in the opinion "there is body" only to "*natural instinct.*" This notion can never satisfy us, as affording either the reason for our belief, or as detailing to us the manner in which it arises.

* But this part of the subject will be more fully entered upon in a separate treatise, where it is intended to introduce some extracts from Berkeley's "Principles of Human Knowledge," and to apply the ideas here suggested as an answer to them.

SECTION II.

1. *Sensation a generic term, &c.*
2. *Question restated.*
3. *Generally answered and subdivided into three parts for further consideration.*

I. In the discussion of this subject (“*as to our knowledge of the existence of body,*”) I mean to follow the example of Dr. Berkeley in the use of the word *sensation* chiefly, instead of *perception*; because it is a *generic term*, comprehending every consciousness whatever. Dr. Reid* is most unphilosophical in supposing perception to be a power of the mind independant of sensation, and that it can be contradistinguished from it; whereas, although *every sensation* may not be *the perception of an exterior object*, acting on either of the five organs of sense, yet there can be *no perception* of such objects without

* In the beginning of his argument against Mr. Hume in his Inquiry of the Human Mind.

that *inward act* of consciousness, which, as a consciousness, is in truth a sensation of the mind. When it is apprehended *that all we know* must be by means of *consciousnesses*, or *sensations*, then will be the time to analyze their various classes, to examine their relations, to notice their peculiarities, in order to discover by what means it is we come to the belief of *non-sentient* existences. I know, indeed, that it is usual to apply the term *sensation* to those perceptions only which are unaccompanied with the notion of *their inhering in an outward object*, as the pain arising from the incision of a sharp instrument is a sensation, which is *not in the instrument*. But in reality every thought, notion, idea, feeling, and perception, which distinguishes a sentient nature from unconscious existence, may be considered generally as sensation. Whereas perception, as used by some authors, (especially by Dr. Reid,) begs the question under debate ;

i. e. of the existence of objects or masses of external qualities already *perceived*. For under any illusion of the senses, a person would say, (as of sight, for instance,) “ I thought there had been a bird in this room ; until I *perceived* it was only a painting : ” meaning that he made use of the *whole knowledge relating to the subject*, then in the mind, as an instrument, an inward eye, to correct the impressions at first received ; and when the doctrine I propose becomes unfolded, the following is the conclusion to which I wish it may lead, viz. *That the relations of various sensations generate conclusions, which become new sensations or perceptions, and which, as so many inward objects of sense, afford an evidence of the existence of the exterior objects to which they refer, equal to the evidence there is for any existing sensation whatever, in the mere consciousness of its presence.* Mr. Hume uses the word *perception* in the sense I do that of *sensation*, i. e. for any conscious-

ness whatever. But on account of the ambiguity to which that word is exposed, I prefer the latter term. However, when I occasionally use the word "perception," I use it in the sense of a "*consciousness of sensation*," a SENSATION TAKEN NOTICE OF BY THE MIND, and this is the sense in which Mr. Locke defines the word.

2. Having said thus much for the sake of clearness, I proceed to state the question proposed, with some slight variation of expression, thus: *Whence is it, that many of the sensations with which we are acquainted are considered as objects continuous in their existence, outward from, and independant of our own*, when it is obvious, they are still upon the same footing as those are allowed to be, which are considered as interrupted, inward, and dependant beings; being all of them *equally perceptions, or feelings of a mind*, which when *not perceiving, or feeling*, cannot take notice of any existence whatever?

3. I answer that we do not conceive our *sensations* so to exist, but by habit associate them with the notion of some sort of corresponding continuous existences, and that we gain the knowledge that there must needs be some *continuous (independant)* existences, beings that are *not* sensations, by the means of *reasoning*, which *reasoning itself* consists of other and *superinduced sensations*, arising from the comparison of the relations, of simple sensations among themselves, thus testifying the existence of the external objects it represents, as much as the experience of simple sensations, (of colour, sound, &c.) testifies the existence of their respective internal objects; and that, although we be only conscious of our sensations, yet our whole combined sensations include in *their relations* the necessity, that there should be, and the proof that there are, other existences than the mere sensations themselves.

In order to discover *what these rela-*

tions* are, whence this result is deduced, let us inquire,

First, By what means it is we ac-

* In dreams and madness the mind is not in a state to perceive and examine *these relations*; for, First, There is no remembrance of the *place* the percipient is in; therefore, *the relation of place* in regard to all those vivacious images which are moving in the fancy is wanting, which, did it exist, would show they were merely parcels of sensible qualities, independant of the action of the senses on external objects, and thus render the mind *conscious* it was in a delirium; a very peculiar state of mind no doubt, but one which experience proves may take place, and which at once renders futile that notion of Hume and Berkeley, that the *reality* of things consists only in the superior *vivacity* of their impressions.

Secondly, The mind is not in a fit state to perceive, that these masses of sensible qualities are not such as can return upon the sense when called for; and so are wanting in that proof of *continuous* existence.

Thirdly, The mind is not in a state to combine with these observations, the knowledge that these masses of sensible qualities cannot owe their existence to those methods of *formation* which in nature determine objects, independant of each man's sense in particular, and, therefore, wholly different

quire the notion of *CONTINUOUS existences*, in opposition to the *INTERRUPTED sensations*, by which they appear to the mind?

Secondly, Examine the foundations, for considering such objects *EXTERNAL* to, instead of a part of, or included *IN* the perceiving mind.

Thirdly, Further consider, whence the notion originates, that such objects are entirely *INDEPENDANT* of our own existence; although we can only know them by our sensations, which themselves *DEPEND* upon our existence?

In the consideration of these three branches of the question, I shall take notice, how far the method nature takes to *generate* the notions of independant existence, *proves* it, and cursorily observe on the errors of Mr. Hume and Bishop Berkeley on these points, &c.

beings from the creatures of one man's fancy in particular, the result of a lively, or disordered circulation of the blood.

This view of the subject will be further pursued in the discussion of this essay.

CHAPTER I.

ON CONTINUOUS EXISTENCE.

SECTION I.

Whence the knowledge of CONTINUOUS Existence unperceived?

FIRST, I observe, that the *method* in which what are called external objects* introduce themselves to the mind, occasions it to judge, that the cause of *each sensation in particular*, is *different from the cause of sensation in general*, and so *may CONTINUE to exist* when *unperceived*. For by a *general* sensation present to the mind, it *always* possesses the notion of the *possibility* of the existence of unperceived objects; and from the facts which take place, it can only explain the appearance of objects, by the supposition that they actually do exist when unperceived or unfelt. For the mind perceives that unless they are

* i. e. The object which meeting with any sense excites its action.

created purposely, ready to appear, upon each irregular call of the senses, they must CONTINUE *to exist, ready to appear* to them upon such calls.

Also the mind knows there must necessarily be some sort of continually existing beings which are not perceptions, on account of their successively *vanishing*; for there needs must *continue sufficient objects to cause* a renewal of them; otherwise they would each in their turn “BEGIN *their own existences*,” i. e. a relation of ideas would exist, which by the youngest minds is not embraced from its involving an intuitive contradiction.

Such is the latent reasoning silently generated in the minds of all men, from infancy;—by returning on their steps men can again recover the image of the house, the tree, they have just passed: Do these objects continue to exist in them; and is the eye put in action; and does motion take place in relation only to the mind; or more indefinitely to the object called self? (i. e. an individual

capacity for sensation in general?)—No, in vain would sight, and motion, attempt to call up these images, unless as objects different from the mind, or object termed *self*, or simple capacity for general sensation, they were ready to appear in relation to those appropriate methods for their introduction, (viz. motion and the use of the eye); which cannot gain any appearance of them, by only applying such methods as call upon the inward sentient principle, termed mind. The *readiness, therefore, to appear when called for* by the use of the organs of sense, mixed with the reasoning, that the organs of sense and mind being the same, a *third* set of objects is needed in order to determine those perceptions *in particular* which are neither the organs of sense nor mind *in general*, forms together the familiar reason, (the superinduced sensation,) which yields to all,—infants, and peasants, as much as to wise men, the notion of the *continual* existence of objects unperceived. Interrupted sensa-

tions of mind, when the organs of sense are not used, are not ready to appear upon any *irregular call* of any power we are possessed of. But the mind is conscious of the *interruptions* of its sensations; therefore, the ultimate *causes* which exist ready and capable to renew them, must be UNINTERRUPTED *causes*, otherwise they would “*begin their own existences* ;” a proposition which has at large been proved in the former essay to be impossible, for any being, or any affection of being to be capable of. The more refined kinds of reasoning, I grant, lie not in the compass of thinking, of which ordinary minds are capable ; and as this essay is intended to explain the popular notion of all men, and to shew exactly what it is, and how far philosophy will support it, and how far dissent from it, so I shall chiefly dwell upon the method nature takes with all men. And, therefore, I repeat, that men take notice from their earliest infancy, that the *call of the organs of sense*, and the use of motion, are related to things *constantly*

ready to appear in relation to them, and that the action of the organs of sense, and *motion*, have *nothing to do with*, and can *gain nothing* by applying themselves to that object they consider their minds. But this may easily be translated into philosophical language; and resolves itself into the consideration, that *that class of sensations*, called the *use of the senses*, and *motion*, will by *application however irregular* to some sort of existences, introduce the notice of them to the mind, and that these existences, being always *ready to appear* upon these irregular calls of the senses, and motion, must continue to exist when *not called upon*, in order to be *thus ready to appear*. But the sensations in which they appear to the mind, are by consciousness known to be *interrupted*; therefore, the existences which are *uninterrupted* and *continue to exist*, and which are in relation to the *senses* and *motion*, do *not* continue to exist *perceived* by the mind, but continue to exist *unperceived* by the mind. Moreover, the

capacity for sensation in general being given with the use of any particular organ of sense, certain perceptions belonging to that sense do not arise ; therefore, when these remain the same, and the perceptions in question do arise, they must be occasioned by *unperceived* causes affecting it, the existence of which causes is known, and is demonstrably *proved* by these their effects. These observations and reasonings when compounded together, give evidence for the *continued* and *unperceived* existences which are in relation to the senses, as much as the exhibition of any simple sensation whatever affords an evidence of the existence of that *new being in the universe, in which the sensation consists*. For colour, sound, &c. may be considered as so many beings ; and every variety of them, as so many various beings, whose *existence* cannot be *disputed*, after a *consciousness of their appearance to the mind*. In like manner *the relations of the simple sensations* are equally true in their existence.

The *existence* of the *notion of four units* is not more certain under the immediate consciousness of it, than *all the relations* that are included in that number ; and if in the examination of these relations, any *negative* ideas present themselves, these *negations* are upon the *same footing also* ; and as *non-existences* are *proved not to exist*, as much as *positive* ones are proved to exist. Now the only objection that can be made to this reasoning, is the possibility of an *imperfect* or *false view* of the relations in question—and this I grant. But upon the supposition that the mind in this matter observes carefully enough the *relation of its simple sensations*, then the evidence for the existences which depend on them, is *upon the same footing as are the simple sensations*, and must render an equal confidence in it.

Now all that is wanted for the argument is to shew, that reason, (or the *observation of the relation of our simple sensations*,) does as a new sensation of the mind, give evidence of unperceived

existence, and therefore affords a solution to the difficulty which appears to be in the question—Whence we know of any *continued existence*, when we can *immediately* know nothing but our sensations, which are obviously only *interrupted existences*?

SECTION II.

1. *Several corollaries with the preceding statement —The association of the sensible qualities with the ideas of their unknown causes.*
2. *The error of Dr. Reid and others in separating primary and secondary qualities.*
3. *The error of Bishop Berkeley.*
4. *Time, &c. The near union of popular and philosophical notions on the subject.*
5. *The nature of dreams, and the difference between them and realities.*
6. *The reality of a future life.*
7. *The conclusion that the proportions and relations of unperceived things are known from the relations of the corresponding sensations they create, and find a fit illustration in the nature of algebraic signs.*

1. Hence it arises *first*, that it is owing to the intimate *union* and *association* of the sensible impressions, with the ideas

of their *causes*, that these *causes*, (or objects,) can never be contemplated, *excepting under the forms of those unions*; by which it comes to pass, that the *whole union* is considered in a popular way as *existing unperceived*: and it requires a philosophical examination to separate that natural junction of thought. This explains, I think, by an easier as well as truer method, than that of the “*feigned imagination*” to which Mr. Hume has recourse, whence it is, that colour, sound, &c. as well as extension and solidity; i. e. all our perceptions of primary and secondary qualities, are thought to exist unperceived, when yet a *perception* certainly cannot exist *unperceived*, nor a sensation *unfelt*. It also explains why even philosophy does not readily give up the notion of the separate existence of primary sensible qualities unperceived; for, first, it is too great a stress for the imagination to separate all sensible images from the ideas of their causes; that which is left seems as nought, and the mind cannot bear that

vacuity of thought: and, secondly, a number of arguments are lost, as men think, for *Creation*, for *Deity*, &c. which is really not the case; and if with minds equally removed from unfounded fears on the one hand, and insidious intentions on the other, men would pursue logical deductions, and rise above the weakness of keeping up a false philosophy in order to avoid the consequences of truth, they would come to clearer notions of all important truths, and establish them more firmly than they possibly can do, by the retention of any popular prejudice, however it appears to favour them.

Popular prejudice, it is true, leads frequently to a belief in those results, which reason, by different steps, may assure us to be correct. But the vicious mixture of philosophical analysis, with some erroneous notions, only gives birth to monstrous opinions; the old and common habits of thought are disturbed by it; the road, which before seemed so plain and direct, assumes a different appearance under the partial lights of a

temporising philosophy, which are only sufficient to disclose the dangers through which we managed before to walk, blindly indeed, but with sufficient security for every ordinary purpose of life.

2. Dr. Reid's philosophy is not exempt from the fear alluded to, nor, in consequence, from error. It is the clearest and most logical reasoning possible, as long as he descants upon the nature of the secondary qualities, "observing, that the causes for them being named by the sensations they create, occasions an ambiguity of thought as well as of expression, and that the nature of the causes is wholly unknown in their unperceived state."* But he cannot regard the *primary* qualities as subject to the same reasoning; that there is an essential difference between them, for that the mind has clear conceptions of their *external nature*,† and therefore he

* Inquiry into the human mind.

† Essay on the intellectual powers.

yields in an instant all that would render his philosophy most valuable, by those contradictions which would endeavour to show, that extension, figure, hardness, softness, i. e. all primary qualities may be known distinctly as they exist when unperceived; that these perceptions are *suggested* by sensations; but that the perceptions themselves are not sensations, and though clearly “*conceived of*,” “*do not resemble any sensation whatever*,” thus making the *perception* of primary qualities in their independant state, to be the result of the sensations which those primary qualities convey to the mind, whilst the perception *itself is not a sensation of mind*:—Considering *perception of visible figure*, to be capable of existing without such *conscious* vision being either an *idea, impression, or sensation*; conceiving it possible, “*immediately and objectively*,” to *perceive* extension, hardness, figure, &c. when yet the organs of sense are to be used as a means of perception, and by whose use, and in whose conscious living feeling, there must be a modification of the

objects, which must at least add something unto them, or in some way alter them from the state in which they were, when existing unperceived ; overlooking entirely a certain fact in his appeal to the notions of the vulgar, concerning their *immediately* seeing “ the *real* sun and moon,” (and not an image, impression, or idea of those objects,) namely, *that the sun being blotted from the universe, would still be seen eight minutes after its destruction.*

3. Hence may be seen the error of Bishop Berkeley, who perceiving that the sensations of qualities, (commonly termed sensible qualities,) could not exist unfelt, concluded that “ *nothing material could exist unfelt,*” so that “ all the “furniture of heaven and earth were no- “thing without a mind ;” and as his followers conceive after him when they say, “ *Time is nothing,*” “ *extension nothing,*” “ *solidity and space equally nothing !*” That such propositions are professed is not a fancy, for I have heard the notions

maintained in the conversations of the day, especially with regard to *time*, which as it was concluded to be *only* a quality in reference to a perception of mind, so it could not, (it was contended,) be a *measure*, adequate to the allotment of any peculiar portion of existence, as necessary to the attainment of certain ends; such as the possibility of the events of a long life taking place in the short space of a moment, *of that twinkling of an eye, in which the eastern prince, with his head beneath the water, COULD MARRY, AND BECOME THE FATHER OF A NUMEROUS FAMILY.*

I have heard it maintained by able men, that this Arabian fable is strictly philosophical; and in consequence of such contradictory ideas, it is supposed proved, that the author of it perfectly understood, in that early age, the nature of *time*, to be what these philosophers consider it, *a mere succession of ideas in a mind.**

* Bishop Berkeley's doctrine will be spoken of afterwards.

4. Hence may be seen, that the popular and philosophical notions nearly meet, for there must be a cause for every effect, and therefore continually existing causes for all the qualities ready to appear to the mind, upon the call of the organs of sense and motion; and these causes must have the *same proportions*, in relation to *each other among themselves*, as the *effects have to each other*; for the SENSES and MIND, (*or powers adequate to sensation in general*,) being the same, the cause for the sense of *extension* cannot be the same as for the conception of *inextension*. The sense and mind being the same, the cause for a long *period of time*, cannot be the same with the cause for a *short period of time*; and time must be capable of being *measured* externally to the mind, by whatever could measure equality, such as the *beat of a pendulum*, &c.; and such a measure in *relation to other things*, than the *succession of ideas*, would measure off what portions of it were necessary to the existence of those things, in their

formation and continuance, whether animate or inanimate; and even were there no creatures in existence, still this *capacity* of admeasurement must exist as a possible quality, capacity, or object in nature. Thus the existence of *time*, like every other existence in nature, is perceived by some quality it determines to the mind, but has not its whole existence merely in that individual perception. It is the existence of things, and therefore of *time*, which enables them to be perceived, not the perception of them which enables them to exist. Nevertheless, it is the latter most absurd and contrary proposition, (namely, that in the perception of objects their existence is contained,) which is the basis of a modern philosophy; which, however contradictory even in its grammatical statement, does not seem likely to be overturned by observation and detection at the present day. The very words, *perception of a thing*, state a relation between two existences: whereas our modern philosophers consider *one* exist-

ence as created in that relation, which truly is a contradiction in terms; and one which Dr. Reid taking notice of, felt thereby an offence offered to his *common sense*; and one which he knew would have the same effect upon the minds of others, although he did not succeed in detecting the fallacy by which such offence was given.

5. It may here be seen, whence it is that in dreams, we mistake the qualities which present themselves for the qualities belonging to the continuously existing objects of sense—it is because they are combined in the same forms in which they appear in a waking hour; but on account of our ignorance of remaining in the same place during the time of the dream, the *relation of place* is wanting to enable us to correct the false inferences from these vivacious imaginations, and view them in their true character. They are considered therefore as owing their existences to *causes*, which will *respond to every future call of the senses*. A waking

moment shews, that on account of our being *in the same place during the time of the dream*, these objects will not be able to *fulfil their whole definitions*; i. e. *be ready to appear upon the irregular call of the senses*, or be taken notice of by more minds than one, &c.; and therefore are not the same objects which thus appear, are not the objects of *sense*, but of the *imagination*. The circumstance of objects *fulfilling their definitions*, or not, is what renders them REAL, or the contrary. It is not on account of the superior order, variety, and force in which they appear to the mind, as Berkeley and Hume contend to be the case; for a *real* object is that which comprehends all the qualities for which its name stands. And dreams do not present *real* things, because they cannot answer all the qualities expected of them after waking. Now because we perceive, when awake, that sensible qualities are no more than one set of the conjoined effects flowing from exterior objects, *which when meeting with various other cir-*

cumstances, are known to be capable of determining the remainder of their qualities; we therefore refer them to such compound objects as their causes, and as capable of their further effects; and this reasoning is the *step* the mind takes in arguing from the *present* sensible qualities of things to their *future* properties, and that which Hume eagerly enquires after,* denying the possibility of finding it.

It is not as Mr. Hume says, *in the case of bread*, that the sensible qualities of its colour and consistency lead us *immediately* to expect nourishment, or are its causes; *sensible qualities* are *effects*, and are always considered as such, and antecede, no doubt, *other effects*, which *invariably follow*, when the exterior causes and objects are put in action to that end.† In dreams and insanities, &c. this reference is made by the mind;

* See Hume's Essays.

† See Essay on cause and effect, p. 121. Short Essay, "Sensible Qualities," &c. of this publication.

for the sensible appearing qualities, the vivacious images of things, are considered to be what they usually are, in a waking state ; i. e. *one set of the effects* which are *determined by compound* objects, equal to fulfilling the remainder of their definitions, and therefore real, or usual objects, for which certain names first stood. At the moment of waking, the understanding regains its ascendancy ; and, perceiving that during the time of the dream, the mind had only been in one place, it justly concludes, that therefore the vivacious perceptions of sensible qualities could not be *similar effects* from similar objects or causes, but *partial effects from partial causes*, and therefore must necessarily be mere delusions. Wherefore new sets of sensible qualities, which rush in upon the mind, are also justly considered to be the true effects from *real, usual, continually existing things*, which now shall be capable of fulfilling their whole definitions ; for they do not appear to lie open to any objection to the contrary, whilst also the

superior accuracy of the whole sensations, when compared with the former ones, gives the mind immediate security.

And if in any other state of being than this, all our knowledge of outward and independant things could be proved to have arisen only from an action of the brain, and so this life should be shewn to have been but a waking dream, (i. e. the perceptions to have been in relation to other causes than those imagined,) still whatsoever should renew the memory of past life, with the then present sense, would continue the notion of our own continuous existence, although we might require further proof than what we had enjoyed for the assurance of the existence of other beings than ourselves. But I can conceive no method possible of conveying the assurances of other existences besides ourselves, than such as is analogous to what we enjoy; for such assurances must come through some means, some notions in the soul, some reasonings, some probabilities. *And if we will*

always say, the notions are the things, and the things separate from the notions are not proved, it appears to me to exclude the possibility of proof upon the subject; for I hardly can conceive how the Deity himself, in granting proofs to us finite creatures, can go beyond affording us such sensations, and such relations of sensations, as are capable of the inference, that “in order to support the phenomena, there must needs be other continuous existences than ourselves;” and that there must necessarily be continually existing causes, for every variety of sensation, which continues either to exist or to appear. Nevertheless, it is clear that objects are real, or the contrary, independantly of any speculations concerning the cause of our perceptions; they are real, if they fulfil the whole qualities for which their names first stood—those are delusions, which fall short of this, but which, on account of their first appearances, are taken to be the present qualities of such objects, as will realize all the others, upon trial: whilst the mind is in that

state which prevents it from detecting the fallacy, by perceiving the circumstances are such, that it is utterly impossible they can be the original objects for which certain names were originally formed. In dreams, we detect these circumstances on waking—in madness, after recovery.

Now the qualities wanting for the proper definitions of the objects, the absence of which prevents their being *continued*, and *external* existences, may be many; but the chief one is, that those objects called other men, do not testify to their existence; therefore they do not fulfil the quality of *outwardness*, or the capacity of being taken notice of by more than the perception of *one mind*; and therefore these cannot be the *same kind of objects* as those deemed *real*, because they do not possess *all* the qualities expected of them.

6. Sixthly, in religion, those notions which either alarm or console, are *real*,

or *the contrary*, according to their capacity of fulfilling their definitions, and can only be *proved* so, when a future life shall come ; because it is not enough to prove them false, that their birth and decay, the vigour, or faintness, depends upon the organization and action of the brain. The action of the brain is the exponent of the powers of the soul ; but every sensation of the soul is in itself simple ; and whatever in futurity shall be sufficient to unite memory with the then present sense, will render reality of objects to its contemplation. It is of no consequence what are the signs of our ideas, or what *ideas* are the *signs of objects*, provided they fulfil the qualities for which their signs stand. The pointing of the compass is not itself the north in the heavens, yet we know which way to steer the ship ; and there is a *real north* if upon the wide ocean, (notwithstanding the inadequacy of our ideas upon the subject,) we have so guided our vessel as to find ourselves at last “ *at the heaven where we would be.*”

Thus if our notions here shall lead us to a state of happiness hereafter, it is immaterial whether the action of the brain is partly the cause of our notions; or whether the future happiness shall be inspired without a brain.

The objects are *real*, if they either fulfil the positive hopes of virtuous minds; or inspire happiness by ways, “such as the heart of man cannot conceive.”

7. It may therefore be concluded, in contradiction to the idealists, who say, that we can have no notions but of our sensations or perceptions, and that exterior objects not being *sensations*, we can therefore have no notions *of them*; that *by our sensations*, (i. e. *by our reasonings*, which are a *certain set* of sensations,) *we do have the notions of existences or objects*, which are *unperceived or unfelt*—nay, we can have the notions of things which have it not in their capacity to yield a sensation; such as of sound sleep and death, neither of which was ever *felt* by

any one; yet the meaning of which we perfectly understand, by the *negative ideas* which stand as their signs, and by the words which stand as the signs of those ideas. And although it be true, that “*nothing can be like a sensation but a sensation;*” yet by perceiving that objects *unperceived* cannot be *like perceived objects*, by that very notion we do predicate something concerning *unperceived objects*; and concerning our knowledge of them in their *unperceived state*; viz. that they are *not* similar to our perceptions. And this knowledge arises from a reflection, which reflection is itself a sensation: and thus it may be hereby seen that the *whole* of our sensations does include our knowledge of CONTINUOUS existences, which are unperceived. For all our ideas are as algebraic signs, which give evidence both of their own existence, and the quantities also signified; whose proportions among themselves are known thereby, as well as their positive values.

CHAPTER II.

ON EXTERNAL EXISTENCE.

SECTION I.

1. *Knowledge of external existence, how gained, &c.*
2. *The nature and differences of external objects, how known?*
3. *Varieties in the sensations, which are effects, prove their causes proportionally various, &c.*

1. We now enter upon the second part of the question proposed, viz.

Whence is it that a judgment is formed by the mind, that some of its sensations or perceptions are *exterior* to, instead of *included in* the mind, when it is manifest that sensations *are* and *can* be only in the mind—as for instance, a coloured, figured, and extended object, is considered, by the generality of mankind, to continue to exist after being perceived, (although it should be obliterated from

the memory, or left at a great distance,) in its coloured, figured, and extended state—although its colour, figure, and extension be *perceptions*, and perception be the affection of a sentient being?

I answer as before, that by *reason* the mind judges that the *causes* of those sensations in particular, which come under the definition of external objects, must needs be *out* of, and distinct from the mind, or the *cause of sensation in general*; for the notion of *outward* existence does not suit the *definition* given to *inward existence*: *Inward existence* is the *capacity for sensation in general*; *outward existence* is the exciting cause for *some sensation in particular*. *The one* is the very mind itself, or the *power of thought and feeling*; *the other* is a *motive*, or *cause for a particular kind of it*, and therefore out of, and distinct from, the *continually existing essence of it*. *That is inward existence*, of which the individual only is conscious; *that is outward*, which is in relation to the *organs of sense*, and to *motion*, in order to be apprehended,

and must be met by them before it becomes *inward*; and which is so situated as to meet the organs of sense, and reply to the motion *of others*, (others being supposed possible,) as well as our own. But the *peculiar sensations* which outward existences can create as their *effects*, are the only forms under which the mind can contemplate them in *absence*, or expect their *reappearance* after separation; which circumstance forms so strong and indissoluble a connexion, or association, between the ideas of the causes and their effects, that they cannot be easily disjoined from the fancy; and never are disjoined until philosophy brings in some new light; shewing, that “perceptions can only be in a perceiving mind,” &c.; then an effort is made by the mind; and it readily allows, that colour, warmth, &c. i. e. the *secondary* qualities of bodies, cannot be *outward*; and for the most part, goes on to a false conclusion, that *all* for which those words stand must be *only* in the mind; whereas, there must be *causes for them*, and

for *every variety of them, exterior to the mind's essence*; and though when unfelt, or unperceived, not *like* their sensations, or perceptions; yet incapable of being conceived of, except under the images of sensations, and as named by the names given to these appearances. For that which we call *ourselves*, and that which forms any individual mind, is a continued capacity in nature, which yields a *liability to sensation in general*. Then those we justly deem *inward objects of thought*, which are such, as give no symptoms of being the qualities of *continued* existences, capable of yielding the same images to *other minds* than *our own*, (such being supposed;) and those are *outward objects*, which, having nothing in common with the capacity to sensation in general, must be out of, and not included in it.*

* All these merely consist in being *successive effects*; successive consciousnesses, which are but *changes* resulting from prior and unconscious objects, uniting their qualities with those necessary for sensation, in order to their formation—for inas-

Inward thoughts are also beings, which when not thought of, and not contained in any given state of the mind, are nought ; but *continually existing*

much as the *changes*, must be *changes* on that which *continues* to exist, (for any sensation passed into oblivion cannot be changed,) so *continuous* existence is known by *inference*, not by *sensation* ; for every sensation passes away, and another is created—but none of these, in its turn, could “begin its own existence ;” therefore they all are but changes upon the existences which are already in being—they are effects requiring causes. But as each mind could not change, unless *interfered* with, therefore the *interfering* object is *exterior* to the mind :—I have subjoined this remark, since writing the above, on account of having met with M. de Condilliac’s “*Traité des Sensations*,” which is at once, one of the most profound and poetic productions. Nevertheless, I consider his argument as not supporting his conclusions—for he supposes, that during the period in which *the statue* contemplates the first and most simple impressions arising from *successive* and various ideas, that the notion of SELF will be generated from the perception of the *memory of successive* scents merely. Now if *the statue* considered SELF to exist in *any memory*, or in *any sensation merely*, he would consider SELF to be capable of being annihilated, and again

causes, ready to appear, upon the application of the organs of sense, efficient to the production of certain sensations in *particular*, when operating upon the capacity for *sensation in general*, are *out of, and distinct from*, that is to say, *not included in* that capacity.

If a mirror were conscious, then it might know of its own constant existence, as separate from the objects brought for reflection on its surface; and by comparing the method and order, the appearance and re-appearance, &c. of the rays on its surface, might understand well enough, whether or not, they belonged to *continuous outward existences*; although it might *argue*, that it knew of *nothing but of incident and reflected rays*; and that incident and reflected rays, *beginning* of itself; which would appear to it a contradiction—for whenever it became capable of *reflecting* on its sensations, it would consider self as *continuing* to exist, and not to vanish for one single moment during whatever change might arise, and therefore as an existence independant of each scent in particular, and so not included in odour in general.

were not continued outward existences. The *primary* qualites, are subject to the same reasoning as those which are *secondary*; and cannot be *like the sensations* their causes create. Every sensation of mind whatever is an *effect*, and may be considered as a quality. *It begins to be*, and its cause which is *not* a sensation cannot be *like* it, and yet can only be *conceived of under the image it creates* as its effect, whilst the cause and effect being united by the mind, the compound is named as one object by one name.

Is it matter of surprise, therefore, that a coloured, figured, extended object, is considered as existing outwardly; when the continually existing *causes*, which are “ready to appear” to the mind, under these forms, must in order to account for certain existing phænomena, be judged to exist outwardly? Is it matter of surprise when the mind discovers, that although the *effects* cannot exist outwardly, yet the *causes* must, that it should be so startled

at the discovery as not to know how to settle and arrange its belief on the subject, and is filled with a thousand fears concerning the consequences of it? Hence various and inconsistent theories all supported by names of authority.

Thus *some* philosophers make *God create all the images at the moment they appear in every mind.** Others conceive there is a pre-established harmony between the qualities of the external object, and our inward perception of it? † One considers the sensations arising from *some* of the senses, to exist *outwardly*; but *not those of others*, arising from the *rest* of the *senses*. ‡

Another gives up all outward existence whatever of objects and qualities. § And some suppose that if there be such things, that unless they be *like* our sensations, they are not worth talking about. ||

* Malebranche.

† Leibnitz.

‡ Reid.

§ Berkeley.

|| Hume.

Whereas it is evident, that in order to the formation of *all* the effects produced on the mind, through the senses, there must be *efficient causes*, *not included* in the *general essence* of the mind ; and these are “ *ever ready to appear*,” and that in so *clear*, *vigorous*, and *uniform* a method, and fashion, as to the appearances of *figure*, *colour*, and *resistance* ; or of *sound*, and *taste* ; or of *beauty*, and *deformity* ; or of *warmth*, and *cold* ; or of *happiness*, and *misery* ; or of *vice*, and *virtue* ; that whatever they may be, however unknown, they may well be termed *objects*, *outward objects*, which the organs of sense, and their associations reveal, according to their peculiar bearings upon the mind. I repeat it, therefore, that the unknown causes of all our perceptions, are as the unknown quantities in algebra, which yet may be measured, valued, reasoned on by their signs ; and the signs of these outward objects are the sensations they can create ; and they may always be spoken of, and compared together,

as though they did *truly exist*, in *these forms* in which they appear to the mind.

For as the power of sensation is simple, and yet its *kinds* and *degrees* various, when the kinds and degrees relate to *outward continually existing objects*, fitted to create them, they may be compared in their bearings to each other, under the “*ideas and sensations*” they appear to the mind. Thus while the sentient principle observes scarlet, and blue; these two colours may be compared together as existences. Empty space, and solid extension, are two sensations, whose causes must have a proportional *variety*, and may, therefore, as outward beings, be examined as space, and solidity. The same with every other essence in nature; for the organs of sense and the mind being always the *same ingredients* thrown into the compound qualities presented to it, these varieties may be argued on as *they appear*, and are *known* to us when joined with them. The senses and mind, also, may be considered as *measures* of the

proportions of exterior objects, and the measures being always the same, and the quantities and proportions being considered as *measured*, the faculties need not be strained to conceive of them still as unmeasured. Thus it may be seen the notions of the vulgar are not so far removed from truth as it is supposed. All men consider *objects*, as *continually existing outward* beings, appearing to the mind *through the senses*. Their only error is, their considering them to exist outwardly under the inward forms of the “ideas and sensations” they create, through the strength of the associations.

SECTION II.

The notion of exteriority further considered. What the phenomena are which generate the idea of external existence.

But we must examine a little further in what consists the notion of outwardness, how it is generated, and what are those phenomena, which make us

conclude, that the continually existing causes of our sensations are *outward*, and not included *in* that object whose definition we name mind? Now, I observe, that having the word “outward” we must have the ideas the word stands for; and the ideas are negative ones. For *outward* existence means, existence *not* contained in the mind; and negations of being in any circumstance, when the relations of existing things will not admit of the existence of the being in question, are proved as a consequence from these relations, as much as the affirmations of the existence of beings, are proved on account of *other* relations. The sum, or consequence of 5 *plus* 5, is 0 in the place of the units; to shew there are no units expected in their place; and the idea of “*no being*,” conducts our expectations aright with respect to the total sum; and the *mark* the *zero*, conducts our ideas aright respecting the *particular difference*, between *this* and *any other number*. In like manner, from the phenomena it is

judged, that the continually existing causes of those sensations called objects, are *not in the mind*, and so must be *out of it*. But this piece of reasoning to *justify the phenomena*, is an *inward* sensation, which testifies of the existence of those things which are not sensations, viz. “outward beings.”

SECTION III.

The notion of exteriority further considered. The phenomena which generate the idea of outwardness.

1. *The consciousness of sensation being uninterrupted.*
2. *The comparison of motion with a state of rest.*
3. *That tangible objects are beyond the limit of the skin of the body.*
4. *Exteriority as a sensation itself requires a cause of which it is the effect—observations on Berkeley, Reid—the application of the doctrine of cause and effect.*

1. But what are the phenomena alluded to, which require outward existence in order to explain them?

First, the consciousness before spoken of, concerning the *interruption in fact of all* the sensations of the mind, and yet the necessity there should be *some continually existing causes, ready to renew them*; (else they would begin of themselves;) and which must, therefore, be external to each sensation in particular, and its cause.*

For although the images produced in a certain associated train, which do *not* require in order to their exhibition *the use of the organs of sense*, we deem in the mind, and present to the mind during their exhibition; yet the *causes* of each of these previous to their exhibition, are as much exterior to the sensations themselves, and to the capacity of sensation in general, as are the *causes* of sensible qualities, previous to the sensation of sensible qualities. All things *not* in any given state of sensa-

* It may be perceived that the notion of *externality* is not an hypothesis merely as Priestley supposes, but is a conclusion the result of reasoning.

tion of mind, but capable of having their appearances determined there, must truly have their causes exterior to each sensation in particular, and to every cause which may be necessary and efficient to each particular difference.

The question, therefore, concerning the reality of things, if put rigidly, should be :— *With respect to those things* which are out of the mind's consciousness, whence is the proof of the *continual* rather than of the *external* existence of the objects, which are in relation to the five organs of sense ?

For the *causes* of the determination of the illusions of dreams, &c. are *out* of the mind, but they do not *continue* to exist ; nor after an orderly and regular manner remain ready to reply upon the application of any regular instruments whatever.

Now the organs of sense, (although these powers should be considered as merely a class of particular sensations,) yet are the causes of introducing these

objects, which consciousness acquaints us were previously not present to, and in the mind. Also these *externally* existing objects are the same upon comparison, as those which must *continually* exist on account of their regular reply to the irregular calls of the organs of sense, and thus are justly regarded as *continually existing outward objects, ready to appear and to be introduced by the organs of sense to the perception of the mind.* Inasmuch also, as the organs of sense themselves are ready upon the call of the mind to act as such causes, so are they regarded as continuous existences, and justly and reasonably are so regarded; and although their immediate action be perceived, yet they are known necessarily to *continue* to exist *unperceived*, as instruments fitted to their office, and ready to answer the demands of the mind. So that the whole reasoning of the first chapter in behalf of continuous unperceived existences affords a like proof in behalf of the continuity of the existence of the

organs of sense themselves ; and so does the reasoning of this chapter in behalf of their exteriority.

The organs of sense are by all authors spoken of in a very vague manner, and their external, continued, and independant existence taken for granted.*

Berkeley speaks of the “ senses ” in the popular use of that word, and employs it very conveniently, in a manner calculated to support a theory contrary to his own ; for it is necessary, indeed, in order to support any theory whatever, to consider them as *something* more than either “ impressions or ideas ; ” or “ *ideas and sensations in a mind perceiving them ;* ” for *although their action be perceived*, yet it is not in this consciousness that they exist as instruments of sense or by which they act as causes. It is not the *feeling as if we were using the eye* which gives *vision*. It is the eye as a *mechanical instrument* in relation to con-

* See Essay VI.

tinually existing external objects. The same with respect to the rest of the organs of sense as well as motion. It is not the sensible qualities of any thing which can be causes.* The sensible qualities are always effects in the mind, and cannot, therefore, stand out again, and intermix with other objects as natural causes; and if it should be asked, whence the mind knows itself to be exterior to each sensation in particular, and continued in its existence, I answer from the same principle which enables it to judge other things as exterior to itself; namely, from that perception of the understanding which forces upon it the conclusion, that because each sensation in its turn vanishes, and new changes spring up, so there must necessarily be some *continued* existence the subject matter of these changes; otherwise, “*each change would BEGIN of itself.*”

Therefore the mind must be a *continued* and *exterior* capacity fitted to each

* See Essay IV.

change, upon any present state being interfered with by another object; and thus the pronoun *I* is ever *abstract*: and stands for a BEING *exterior* to, and independant of all the changes of which it is conscious.

Now the mind always referring the *sensible* action of any sense, to the *mechanical* action of its respective organ, (as an effect to its cause), and considering this mechanical action as existing in relation to those other objects, or causes, which are likewise needful to introduce the ideas of sensible qualities into the mind, does thereby truly perceive and detect the presence of such other objects as are external to, and independant of mind in general.

It is thus by a union of observation and reason, coalescing with the conscious use of the senses, that we are enabled justly to affirm, that “outward objects are perceived immediately by sense.”

Secondly, I consider another (and that perhaps the chief) method which

nature takes to impress the notion of outwardness, to be by means of motion. For the intimate sentiment of our own existence, separated from the ideas of our bodies, (which idea of body, again includes the idea of motion along its surface from point to point), has no relation to *space*, or place; *thought, sensation merely*, never suggests the occupation of space as essential to its existence; the *need of room*, or of the distinction of *here* and *there*. A dead body and a living one, take up the *same portion* of *space*. But the very impression of motion consists in the impression of passing through extended space, and as a corollary with it suggests to the mind, *here*, and *there*; and whilst the *mind* requires *no place*, nor *space*, to *comprehend it*, the sensation of passing through different points of space, suggests the notion, or rather inspires the immediate feeling of the *extension of space*, (or of an unresisting medium,) but never that of the *extension of the sentient principle, the self*. This space or unresisting me-

dium appears continually to exist, and to respond regularly to *motion*, as other objects do to other senses.* It is hence the immediate consequence of motion also to suggest the corollary that must be included in its essence, that is, the *reality* of distance or outwardness from the *sentient being*, the *self*; which has an equal relation to *rest*, and *motion*; and, therefore, knows of outward existence, as it does of *continued existence*, by a piece of reasoning; viz. that it needs must be in order to justify the possibility of motion when in a state of rest, as well as regularly to respond to its action upon demand.

Therefore, the soul has the *idea* (or conclusion from reasoning) of distance, mixed with the *sensible impression* of rest; which *mixture* gives occasion to that just result and consequence, the notion of *outward* and *inward* existence.

* Kant imagines time and space to be only modes of the mind, which is mistaking the *causes* which determine a mode of the mind with the effect, viz. the mode of the mind.

Moreover, *motion* introduces sensations of touch concerning objects, only *seen* when at *rest*, and which are the same as those which “ continually *exist ready to appear upon the irregular call of the senses.*”

But it must be observed further, that the *cause* of motion, or unperceived motion, is the *essence* of what motion is in nature ; and in its unperceived state, we know that it *cannot be like its effect*, a perception ; all we know is, that it is in its *unperceived state*, in which it must act as a *cause*, and that the perception of it must be an *effect*, and owe its existence to a prior cause ; because it is a *dependant being*, and *begins to be*, even when *unrelated* to us ; for we know our *sensation* of it does not cause it, therefore, something else does. I shall here observe, once for all, that *all sensations*, and all their varieties, must have causes or objects in nature as various as themselves which are the effects of those causes, or the qualities they occasion to the mind's perception.

Contrary qualities also must have contrary causes. Thus the *cause* for motion cannot be the same as that for rest; nor for one place, (whatever place may be,) as that for a different place.

Now the *names* for the qualities, may indifferently be applied to the *causes*, or *external objects*, or to the *effects* the *inward perceptions*; or to *both together*, as *compound beings*. It is in the latter sense they are *always popularly* applied, and on account of which circumstance there has been so much confusion in the minds of philosophers upon the subject. Especially as it seems to me in that of Dr. Reid.

It is, however, unavoidable that it should be so; for it is impossible to name unknown things so well by any other names, as by those given to their constant and invariable manifestation. The constant junction of the *unknown causes*, and their *known effects*, forms the reason why the compound is supposed to be *placed externally*, and distant from

the mind, as well as supposed continually to exist; and *in that compound state*, “to be ready to be called upon;”—which, although the whole world should think it, cannot in nature be the case. For objects are *minus* the senses and mind, and cannot be the same with that state, or sum, in which they exist when *plus* the senses and mind.

Thirdly, The notion of *outwardness* is gained by the observation, that the *causes* of such sensations, as require the use of the organs of sense in order to let their specific impressions enter the mind, are *out* of, (i. e. *not included in*,) the definitions and limitations of our own bodies: and we consider *that as our own body*, which is within a bound, or certain limit, and is the source of *conscious* pleasure and pain, and this *limit* we call the skin, within which, is contained *all we call ourselves*, and being summed up, is the notion of the conscious sensation of the extension of the body, and of a sufficient cause for life and sensation in general. Because

without any impression from what are called external things, or the use of the organs of sense, the general sensation of life can go on. But for *particular kinds* of sensation the organs of sense are to be used ; which organs are in relation to things that appear *beyond the skin of the body*, and which also require motion, in order to apprehend their tangibility. Now if the mind does not here reason amiss, this method which nature takes to impress the notion of outwardness, also contains *a proof* of its reality. For if a certain number of amassed causes are sufficient for a portion of sensation in general, (say a mere sense of life,) and some other causes are wanted in order to excite particular definite kinds of it, then these become independant of each other ; and the *use of the organs of sense* and the mechanical action of *motion*, being requisite to enable them to intermix with each other, are such circumstances as place them in that relation to each other, as may be deemed distance. For it

must be ever remembered that *words are arbitrary*, and we may name distinct *classes of sensations* and their *causes*, and the *apparent limit* of their *causes*, by any name we please; and they can be *nothing* else *but what we do so name them*; and *such* we may say shall be called *inward*, and such other *outward* existence. Then the whole mass properly put together again, (after all this excruciating analysis,) becomes our own, and other existences. It is owing to this circumstance of the *causes* of particular sensations being considered outward, that we look to them as capable of being useful or hurtful to us; that for instance, we consider there is a quality in water by which we may be drowned, instead of considering drowning, as *only* a sensation of mind, (a necessary consequence of an unmodified ideal system,) whilst the perception of the mind by which it fails not to take notice that it can continue to exist, although this quality for drowning, which is a quality tending to death, still continues to exist

in water, (*ready to appear, if called upon,*) proves that the *causes* or objects of these two existences must be *external* to each other.

Fourthly. Also outwardness is represented in the mind as a sensation, (a perception of a quality,) which as a capacity in nature, admits of motion, through an unresisting medium, towards objects at a distance; and a power of *seeing* this medium, by the difference of its colouring in comparison of those objects. In this sense, it is a quality common to all continually existing objects; and although the inward sense of it be a sensation, yet it must have its *cause*; and if it regularly return upon the senses as other qualities do, must be concluded also like them “*continually to exist.*” Moreover, things must appear to the judgment and the senses *as outward*, although inwardly conceived of, and that in respect both of primary and secondary qualities; because, when unperceived, the proportions and relations of things, must have their own

position to each other; and these, when meeting with a sentient nature, must inspire the sensation of proportional positions. Now the limit of the conscious feelings of pleasure and pain, marked out by what is termed the skin of the body, will be taken as a centre, or at least as a certain defined point or standard to which other things will be referred; for the sentient nature itself must, in the perception or *imagination* of its own existence, become one of the objects it surveys; thus forming an inward perceived knowledge of the relative position of unperceived things. And when the unperceived cause of a certain quality called *extension*, is combined with another for *hardness*, a third for *colour*, a fourth for *sound*, a fifth for a certain relation deemed *distance*, in respect to the combined causes, for other masses of extension, figure, hardness, and colour; a sixth, for a *different degree of distance*, to what we deem or term our own body: it necessarily follows, that all qualities of continually existing

objects, taken notice of by the senses, must be perceived outwardly, i. e. combined together in select masses, surrounded by that common quality called outwardness, which quality CONTINUES *to exist*, EXTERNALLY *to the capacity of sensation in general*. Now I repeat there is one sense in which it may be said that objects are perceived immediately, as existing *outwardly, by the senses*. It is this; *the conscious powers of the understanding, and the senses, are blended together in man; we are analysing them, but in nature they are united as intimately as are the prismatic colours in one uniform mass of light*. This being the case, they are acting in concert when any object affects the senses. Therefore the understanding knowing the *simplicity* of mental sensation, it follows, that the *varieties* of the causes, (which create *varieties* in the effects,) are instantly *perceived and detected*, and that *immediately* with the conscious use of the senses; whilst also the mind as *immediately* mixes that idea of which the un-

derstanding is aware; viz. that these varieties, as complex objects, continue to exist unperceived and independant, when unnoticed by the senses. The vulgar also, and all men in a popular way, unite with these notions, the constant and equally present sentiment, that the varieties are *like* what the senses render them, by a very natural and almost indissoluble association of ideas. Berkeley never affixed the names of objects to any thing, but the combined sensible qualities which the organs of sense helped to form; omitting the idea of their constant ability, to return upon the sense when called for, and of outwardness being equally a regular attendant upon their appearance, and a capacity in nature necessary to their existence in relation to us, and to our own in relation to them; which *circumstances are included* in their names. He wrote his theory of vision to obviate an objection that might be made on the score of "*visible distance*," in order to prove it to be a sensation of *mind only*,

suggested by tangibility, &c.; but this would not do to explain away that *condition of being*, which, when unperceived, must be a proportional relation and variety amongst unperceived objects, and capable of affecting the touch, sight, and other senses in its own way. This he omitted purposely, in order to have nothing to do with the *causes and objects which create sensations*, until he came to explain them after his own notions, as necessarily *active*, and therefore *spirit*. His method of incomplete definition, and naming only the combined sensible qualities the effects of things, when all men name them as united with the perceptions of the understanding, and the observations of experience, is the reason why his philosophy seems at once plausible, contradictory, and unanswerable. Hume denied that "*reason*" could prove, by the relation of our ideas, the knowledge of continued existences, and resolved all into "custom and imagination." Whilst Dr. Reid, when he asserted, that the primary qualities are

conceived by clear ideas of them as *they exist when unperceived*, and unlike any sensation they yield, was not aware that he explained these conceptions of unperceived qualities, by other qualities which still require the senses, in order to their formation ; and therefore such as could only exist in a sentient being. Thus he explained “*hardness*,” as “a firm cohesion of parts ;” “*figure*,” as “the relation of parts to each other ;” —“*visible figure*,” as “the relation of parts in respect to the eye ;” “*sound*,” by “the vibrations of the air,” &c. &c.—as though these things, after being perceived, could be planted as they appear to the inward sense and consciousness of the soul, *outwardly again*, as independent modes of existence, and objects of contemplation ; as though the very system he is arguing against does not suppose cohesion, parts, vibrations, figure, &c. &c. &c. to be perceptions, which are inward ; because all perception is conscious, and all consciousness is inward and sentient ; thus assuming

as his premises the very idea which is in question ; and which premises involve the difficulty his argument is raised to answer.

It is matter of surprise to me that Mr. D. Stewart should call this “luminous and logical reasoning.” Dr. Reid all along considers “extension, figure, and motion, as instinctive simple conceptions of understood qualities of external matter.”* Now the doctrine of the relation of cause and effect, as I have considered it in my former essay, throws light upon this part of the subject, and would, I think, if it once became familiar to the mind, explain the whole mystery of external and internal existence.

The union of the three following things are required to form the proximate cause for that great effect, the *formation* and *combination* of those aggregates of sensible qualities usually called objects ; namely, first, the unknown,

* See “the Essay on Cause and Effect,” p. 42.

unnamed circumstances in nature, which are unperceived by the senses; secondly, the organs of sense, whose qualities mix with these; and thirdly, the living, conscious powers necessary to sensation in general.

In this union, and with it, is the creation and production of all sensible complex qualities called objects, such as we know them. These objects are what Berkeley calls “*ideas*,” and “*sensations in the mind*;” what the ancients perhaps called species or phantasms; what the moderns call images, ideas, &c. And they all, as I think, err in this, in considering them as *first* formed, and *then* contemplated, and taken notice of afterwards. Whereas, the sensible qualities of things are only formed by being taken notice of. This is what Berkeley means when he says, “what are objects but the things we perceive by sense;” and so far I perfectly agree with him. But then he has omitted the consideration of that circumstance, which is necessary to

our belief in the existence of objects independant of ourselves; *and that is the quick suggestions of the understanding*; the reasoning, that as sensation does not itself form the essence of those existences which CAUSE PARTICULAR KINDS OF SENSATIONS; therefore there must be existences without it; that sensation not causing the *variety* of its own perceptions, therefore there must be *variety* without it; that *various* existences must be ready in order to be perceived, and that these must lie under *various positions in relation to each other*, as well as to the mind; that sensation is but as a thin gauze, through which things are seen in their native proportions, although it imparts to them a similarity of colouring.

Nor let it be thought that children and peasants, &c. are not capable of such observations; nature translates these operations of mind into easier language than I have used, and mixes them from a very early age, as joint powers with

the senses ; by which the practised senses may perceive, (as I have explained above,) that objects are not *only* inward sensible qualities, but exist unperceived continuously, outwardly, and independantly *under the imagination of their appearances* to the senses ;—thus forming that complete whole, which is termed the perception of outward and inward existence. If it be possible indeed that in nature the causes for sensation in general, should be mixed up with those particular kinds of them which yet need the aid of the organs of sense and of motion for their exhibition, then indeed, when *that we call ourselves* shall fail, the *external universe shall also fail* ; and as such a proposition is wholly without proof, so is it beyond the utmost stretch of imagination to conceive : whilst by keeping these causes separate and independant of each other, the understanding, the senses, and the imagination, the notions from infancy to age, and those of all men, without one dissenting

voice agree,—philosophy and ignorance equally agree,—that all objects are to be considered as outward of, and distinct from each other, and that they may indifferently be changed, without effecting the destruction of the whole mass.

CHAPTER III.

THE NOTION OF THE INDEPENDANCY OF
EXTERNAL OBJECTS, HOW GAINED?

1. *The same evidence for the independancy as for the exteriority of objects.*
2. *Change of qualities proves them to be independant of the senses.*
3. *Some objects appear both like ourselves and different from us, &c.*

1. But it is time to enter upon the third and last member of our question. Whence is it that we consider objects as independant of the mind, when we can only know them by our sensations, which sensations are beings dependant upon the mind's capacity?

I answer, first, That those circumstances which go to prove that there must be truly *outward* causes, for particular sensations, prove them to be independant causes of those sensations.

For such causes or objects as are entirely exterior to the cause or capacity for sensation in general, must be independant of such capacity.

But, *secondly*, those objects which are in relation to the five organs of sense and to motion, are considered *independant* of each individual capacity for sensation, because such *alter their qualities*, and seem some of them to suffer pleasure and pain without *our observation* of the change of qualities, and without *our consciousness* of these sensations. If we endeavour to regain a thought by reflection which has been out of the mind, such thought never exhibits any quality which renders it probable *to have* existed in an unobserved state.—But with respect to those objects which are “ready to appear to the senses,” we observe they have gone through *changes of qualities*, the process of which was not observed by us, and which changes therefore, must be independant of any part of ourselves; and not being perceived, cannot be caused

by our perception, and must therefore, be wholly independant of it.

Thirdly, Objects are reckoned *independent* of ourselves, because they appear *like ourselves* plus or minus the varieties of qualities;* and *we to ourselves* are independant of others, and are minds, beings, capable of sensations.

And this I consider as the chief ground of all our belief in a plurality of minds, as well as other objects from infancy; for *similar sensations are similar objects*, and the *varieties* make the *varieties*; and we, in the *sensation of ourselves perceive continuous* existence, that *might exist independant of others*: then we have sensations of other objects like ourselves, but have not *conscious conti-*

* Bishop Berkeley has this idea when applied to the existence of other minds than our own. The reasoning is equally forcible when applied to any kinds of beings and their qualities. This shall be further taken notice of elsewhere. See Essay 1st. of the shorter essays.

I find an unexpected coincidence of thought here with Mr. Mill in his pamphlet on Education.

nuous sensation of their existence. We do not feel their pleasure and pain, but they give symptoms of feeling like ourselves conscious continuous existence, pleasure and pain, &c. Therefore, we look upon them as masses of qualities *like ourselves*, other human beings in existence, *and so on*, according to the varieties of sensation, i. e. *various causes*, equal to, and commensurate with various *effects*.

If it should be objected, that lost thoughts which reflection recovers, are not considered as independant beings; I answer, *thoughts* recovered by reflection, are *perceived to be* IN the mind at the moment they are seeking for; and by following a train of associations, we only clear away any confusion respecting them, and they never indicate by any circumstance whatever, that they continue to exist when *not perceived by the mind*;—therefore, they are *not like ourselves*, but seem to be only relations or accidents of others of our thoughts which are objects within ourselves:

So the organs of sense modify objects *continually existent, ready to appear* upon the irregular calls of these organs, and which are *outward* from the body, and whose *causes* are *independant* of the cause for sensation in general:—But *reflection* helps to form clearer ideas of confused thoughts, which are NOT “ready to appear upon irregular calls of the organs of sense,” are *not exterior* to the body, require *not motion* to be apprehended as tangible, and whose *causes* seem interwoven with the general cause for the associations of our ideas; which associations and their causes, are dependant upon the whole *being* deemed ourselves, ceasing in sound sleep, and reviving with the waking hour. Thus the instruments of the five organs of *sense* relate to *outward, independant, continually existing beings*; but *reflection* relates to inward, dependant, interrupted beings.

Fourthly, We gain the notion of the independancy of objects, from the observation of one object affecting many minds in a manner which renders it im-

possible there should be as many objects as minds. If five men see a pond, and can only walk round one pond, then there is one pond seen five times over, not five ponds ; so the pond whatever it may be when *unperceived*, must at least in its unperceived state, be independant of, and I may add external to *all the minds* ; for if the pond were *only* in the mind, there would be five ponds, and every person who perceived a pond would create another pond, and yet this multitude of ponds in perception, would in many respects but merit the definition due to *one pond*. Thus there would be such a contradiction among the “ ideas and sensations,” that the mind must come to the belief of only *one pond*, seen by five persons ; that is, in other words, an *independant cause* for particular sensations. This objection to his doctrine Berkeley answers, in a very unsatisfactory, hesitating manner in his dialogues.

Fifthly, The relations of abstract ideas are upon the same footing as out-

ward objects with respect to their remaining when unperceived, independant for their existence, of the existence of the mind itself. This continuance of the relations of ideas, ready to be perceived when called upon by the intellect, and independant of its powers for either forming, or perceiving them, although contained in the juxtaposition of the simple ideas themselves, (whether perceived or not, or whether called for or not,) is what must ever render the pure idealists, most inconsistent in their doctrine. Because the very position, "We know nothing but our perceptions," is, if only a truth when perceived, of no force as an *axiom* that is to govern our understanding when not adverted to; when not a sensation or perception, it would be nought,—leaving thereby all objects of the understanding and the senses equally unproved as to their existence; and therefore still liable to be disputed and argued upon according to the different impressions they make in a perpetual circle, with-

out the mind ever being able to come to any settled determination concerning them.—For we must observe concerning abstract propositions, that we gain the notion of their truth being independant of the immediate perception of them by observing, that our discovery of their truth does not *cause* them; they are discovered, and perceived, because the relations exist ready to be perceived: *It is their existence enables them to be perceived, not the perception of them which enables them to exist*; and whenever the relations are as clear as are the original simple impressions, their existence is upon the same footing of certainty, and is demonstratively equal with them.

It is such a perception of the relation of ideas as this, which affords us the abstract notion of existence in general whether sentient, or insentient;—for we knowing that each sensation as it springs up passes as shortly away, and being equally convinced that it cannot have *begun its own existence*, but must

have been a change of some existence which already is; and yet that each particular sensation is not always determined to the mind; we judge reasonably *there must needs be some existence which is neither* any sensation in particular, nor yet a mere capacity for sensation in general, in order to be the cause of each particular sensation. Therefore, by such comparison of ideas we gain the notion of indefinite unknown existence; whether as a capacity for sensation in general, (not yet under a state of sensation,) or as varieties of qualities capable of exciting that capacity, through the organs of sense. *Indefinite existence, as contrary to the NON EXISTENCE* of which we have the notion by our ideas successively passing away, thence becomes the *genus*, of which each class of the sensations we experience is the *species* or *variety*.

This is an observation which to my mind completely answers the difficulty some at present make, when they say; “that sensation is the only existence

of which we have experience, and therefore we cannot separate any existence from the *idea of sensation*.” For we can always separate or abstract the *most general quality of an object from the rest*, whether that quality be *supposed* among them by the *imagination*, *known* to be among them by the *senses*, or *concluded* to be among them by *reason*, as a result from their mutual bearings.

By such means it is, that the idea of *independancy* is generated: an idea, which as a new and superinduced sensation, stands for the thing signified by it; and for which we have formed the *word independancy*; and by such means it is, that the curious workmanship of nature has enabled us from thoughts which are necessarily interrupted, inward, and dependant beings, to gain the knowledge of continued, external, and independant existences.

Thus, I hope, I have answered satisfactorily the original question,* by shew-

* “ Why we attribute a CONTINUED existence
“ to objects even when they are not present to the

ing that in the sum of our combined sensations (viz. the *perception* of our simple impressions, and their relations,) there is contained the knowledge and proof of the existence of “body” and of the external universe.

“senses;” and, “Why we suppose them to have
 “an existence distinct from the mind, i. e. EXTER-
 “NAL *in their position* and INDEPENDANT in their
 “existence and operation.”

CHAPTER IV.

OBJECTION ARISING TO THE FOREGOING DOCTRINE FROM THE PHENOMENA OF DREAMS, FURTHER CONSIDERED AND ANSWERED.

SECTION I.

The phenomena of dreams does not afford a valid argument against the proof of independant existences, external to mind.

IF the phenomena of dreams and madness be objected to the foregoing theory, on account of their objects being supposed by the mind, to be continuous, external, independant existences, during their exhibition; let it be remembered, that these objects are not capable of fulfilling their definitions, and that the very reason they are considered in a sane and waking state as delusions, is, because the mind perceives that its

powers of comparison were not during the dream in a state to observe such an incapacity.

These powers being restored, the mind immediately takes notice that on account of *several relations of ideas*, which had been obliterated presenting themselves, these objects must be incapable of shewing all their qualities;—they will not affect any more minds than one with the notions of their appearance;—those which are objects of food will not satisfy hunger;—of injury, will do no hurt;—of good, will afford no pleasure; &c.—It is when objects fulfil their whole definitions, that they are *real*; and when they do, it does not appear to me possible, but that their *causes*, (or the objects which are necessary for the formation of those sensations, and to which the senses and motion are relative), must be *wholly independant* of mind;—for when similar objects are perceived at the *same time* by more than one mind, they must necessarily be *external* to each. The only difficulty is

to gain a demonstration, that in our *perception* of any of the relations of our ideas concerning the existence of *other men*, their absolute existence is included.

I consider however the arguments I have used, approaching as nearly to it as possible if rightly understood. For it is not enough that the *causes for sensation in general*, CONTINUE to exist and to be INDEPENDANT of the PARTICULAR *causes which excite PARTICULAR notions*; because *these latter* might nevertheless be DEPENDANT on them; and this is the case in dreams: But the *particular exciting CAUSES*, for *particular sensations* (termed the perception of qualities,) must prove themselves capable of CONTINUING to exist, INDEPENDANT of the *other powers of sensation in general*.

Now this condition, men as well as other objects fulfil, by replying to the irregular calls of the senses and motion; and we perceive that such a circumstance affords a proof of such indepen-

dant continuous existence ; because as the absence of our minds, whether during sleep, or on a journey, &c. makes no difference with respect to “ *the readiness of those objects to appear if called for ;*” so neither could the *supposition of our death*. And this relation of our sensations is so obvious, that *all* men perceive it, and *act* on it from infancy ; and there is no occasion to have recourse to “ *instinct*” or “ *primary laws of belief,*” &c. to account for their faith in outward continued existences.

The objects therefore (unlike the sensations they create, whether fitted to excite the *complex* ideas of *other men*, or any other set of *perceptions*,) *which are capable of regularly answering to the irregular call of any of the organs of sense, must CONTINUE to exist unperceived, and INDEPENDANT of the causes of perception in general.*

Dr. Berkeley concludes more from the phenomena of dreams than they will bear out, and what he says is too remarkable not to be transcribed. On

the other hand, Dr. Reid's notion of extension, seems to me unfounded, ambiguous, and vague, from apparently taking no notice of the *exact similarity* there may be, (even as to vividness and every other attendant circumstance,) between our sleeping and waking *perceptions* of sensible qualities.

SECTION II.

1. *Remark on Bishop Berkeley's conclusion from dreams, shewing a fallacy in his reasoning thereon, as affording a doubt concerning the reality of objects.*
2. *Application of the doctrine of cause.*

1. Bishop Berkeley says, (sec. 18.)
“ What happens in dreams, frenzies,
“ and the like, puts it beyond dispute,
“ that it is possible we might be
“ affected with all the ideas we have
“ now, though no bodies existed without
“ resembling them.” “ Hence it is
“ evident, the supposition of external
“ bodies, is not necessary for the producing
“ of our ideas, since it is granted

“ they are produced sometimes, and
“ might possibly be produced always
“ in the same order we see them in at
“ present, without their concurrence.”

(Sec. 20.) “ Suppose, what no one
“ can deny possible, an intelligence
“ without the help of external bodies,
“ to be affected with the same train of
“ sensations and ideas that you are,
“ imprinted in the same order, and
“ with like vividness in his mind. I
“ ask whether that intelligence hath
“ not all the reason to believe the
“ existence of corporal substances re-
“ presented by his ideas, and exciting
“ them in his mind, that you can pos-
“ sibly have for believing the same
“ thing.” I answer to this, that I do
not consider it as possible for a person
to be affected with the *same train of*
sensations, and in the *same order* in a
dream, or frenzy, as out of them ; *pre-*
cisely similar effects must have precisely
similar *causes*, and in any case where
not only *resembling* sensible qualities
take place, but an *order* occurs which

enables them to return regularly ;—and the mind is in a state to compare and observe upon the senses, then the argument holds good, which shows *that the CAUSES of the sensible qualities exist INDEPENDANTLY of the senses and mind, and CONTINUE to exist unperceived* ;—and neither such an use of the organs of sense, nor such returns upon them, nor such an *order*, nor such comparison of ideas takes place in dreams, and frenzies. In short, the sensible qualities FORM the sensible objects ; but it is a *reasoning* arising out of a perception of the relation of these qualities ;—of the different position of colours in relation to motion ;—of the knowledge of the place where we are, &c. by which external continuous existences are proved ; a reasoning which Bishop Berkeley uses in proof of the independant existence of separate minds, and which reasoning and which minds he does not think can belong to dreams and frenzies, &c. It is by unobserved and apparently slight changes of words and

their meanings, that so great a writer and reasoner as Berkeley could deceive either himself or others.—Let us however analyse a little more accurately the remarkable sentences above quoted, “*It is possible we might be affected, with all the ideas we have now, though no bodies existed without RESEMBLING them*; what happens in dreams and frenzies puts it beyond dispute.”

Now the reason it is put beyond dispute that there are no *external* BODIES resembling our ideas in dreams and frenzies, is because what happens in those states of mind, proves there are no CONTINUOUS INDEPENDANT objects, either *resembling*, or *unresembling* the then ideas of sensible qualities; and which can therefore be capable of fulfilling their definitions. According to Berkeley's own theory, they do not arise even “*from the actions of a spirit, according to that set of rules deemed the laws of nature.*” But nevertheless, it does not follow that even for these ideas, *external* qualities must not originally have been in need;

a man born blind may never have that action of the brain and mind deemed colour; yet *after* the use of the eyes, colour may return, though blindness take place; and this would hold, whether external colour were a resemblance or a non-resemblance to inward colour.

But Dr. Reid errs on the other side; for that all the sensible qualities whether primary, or secondary, can in dreams be the exact counterparts of the sensible qualities in the waking hour is a circumstance, which to my mind yields a complete conviction, (and in itself contains an absolute proof,) that they are equally upon the same footing as being "*ideas of sensation*,"* when holding a place in the mind's consciousness; and that our knowledge of their *causes* as *continually* existing as well as our future expectation arising out of that knowledge, depends upon a reasoning which cannot take place in dreams and frenzies; for those *other ideas such as place, &c. which ought to be compared with*

* See Dr. Reid's Inquiry into the Human Mind, sec. vi. chap. vi.

them are not in the mind; they are asleep; as it were, (they are not in being.) The *sensible qualities* are therefore taken for the *real* things; i. e. as some of the *effects* arising from such external causes whose aggregates will be capable of determining their remaining qualities.

The phenomena of dreams touch upon the difficulty there lies in the mind detecting the presence of exactly similar objects when it perceives only *some* of their qualities,* and is not in a state to unite the ideas of the understanding with the perception of sensible qualities, which union alone renders objects worthy of bearing their names. Hence it is, that if men reasoned as Mr. Hume says they do from sensible qualities merely, they would be *fools* or *madmen*. Young children, very ignorant persons, men in dreams or frenzies consider the conscious, sensible *qualities* of things, as effects indicative of similar objects, because they have not present in their minds those notions of the understand-

* See the shorter Essay, "That Sensible Qualities cannot be Causes."

ing, those ideas of *their methods of formation*, of *the place in which they are*, &c. and which being compared with the consciousness of the sensible qualities, shew whether they are masses of like effects from like ultimate causes, or not.

The true reason why external *resembling* objects cannot be necessary for producing ideas, is because it is *impossible* that the external object, which is allowed *not* to be an idea, can *resemble* an idea, in that particular quality of its *conscious sensation*.

But again, Bishop Berkeley says,—“Hence, it is evident the supposition of external bodies is not necessary for the producing of ideas.” This is not evident, for the word, “*resembling*” being dropt, alters this inference from being a *just conclusion* from the premises. Objects—external objects; i. e. objects not one with the mind, nor included in any particular state of its sensation, may, and according to my theory, must be necessary for producing those ideas

which are exhibited as *changes upon such a state*. Nay the real, plain, matter of fact is, that objects *external* to mind are needed even for illusory ideas; for all *ideas* whatever, and *their causes*, are external to, (i. e. not included in,) any *particular given state of sensation*, and *its cause*.

For any particular given state of sensation, mixed with the consciousness of our own continued existence, and the *idea* of its continually existing cause, forms the compound idea called *self*; but the *particular* causes for *new* ideas, are not contained *in* these, and so are *out*, and *distinct from them*.

And hence it appears that the *essential* difference between the particular causes for *illusions*, and the particular causes for *realities* consists only in the latter *being CONTINUALLY existent*: for both must be *external*, and neither can be *resembling*.

Therefore it is required that objects should be not only *external*, but *continually* existent, in order to be in relation

to the organs of sense, and to produce such ideas of sensible qualities, as in a sane and waking state of mind proceed in a *regular* “*order*,” and by different laws than the *irregular* fancies of dreams and frenzies. It may thus be demonstratively proved, that it is “*impossible* to be affected with the same train of sensations, in the same *order* as a sane waking person experiences them, and yet these be conducted after the same *manner*, and by the same causes as dreams and frenzies are.” *Like effects* must have *like causes*; either the organs of sense are not wanted, or they are wanted for the regular exhibition of qualities; in dreams and frenzies they are *not* wanted for the formation of the irregular fancies of sensible qualities; but upon the supposition that the organs of sense are used, they must be used in relation to some objects which are correlative to them, and which Bishop Berkeley clearly shows cannot be *like* the qualities they are the means of form-

ing.* This answer is further supported by the following considerations.

1. That it is more than probable that such dreams, &c. could not exist, unless outward objects had acted previously on the senses.

2. Because we cannot imagine, that to a mere lunatic illusory call of the organs of sense there could be a regular reply, unless God were to work a miracle for the purpose, which it is absurd to suppose.

3. Such an illusive order of ideas in one man's mind, could not render them capable of appearing to more minds than one, *if more than one were but supposed in the universe.*

4. Because physically and physiologically speaking, there is upon the per-

* That they can resemble ideas in some general qualities, which are independant of the organs of sense. See Recapitulation.

ception of every lively forcible image, a peculiar action of the circulation, which is natural and consistent with health, when arising from what are called outward objects. Whilst the perceptions last, their proximate causes may be considered as a set of temporary, but strong excitements ;—but when their ultimate causes are removed, the perceptions vanish, and with them the excitements. Now if the desires of the mind which seek their objects irregularly, were during a dream to be answered as vividly, forcibly, and regularly as when awake ; some circumstances would be equivalent to the following contradictory action in the system ; namely, to an irregular demand of the organs of sense, and yet the capacity for a *constant* ready reply to them ; that is, a quiet, healthy action of the system, and an intranquil, inflamed action, both in unison together.

In other words, it does not seem possible and consistent with health, that the circulation should be capable of car-

rying on such an action of the system, as should be equal to render life a waking dream ; i. e. that within its own powers it should be capable of acting regularly, as well as vividly ; and of performing without disturbance the stimulus, of which outward objects are supposed the occasion.

5. Because it appears impossible in the way of *dreams* and *frenzies*, that “ ALL ” the ideas we have, and all the “ ORDER ” of them, could take place ; *the appetites of hunger and thirst not being capable of satisfaction in this way* :—at any rate, the ideal theory, and its contrary, are always understood, to be argued upon the supposition, that the organs of sense *and motion* are truly used, and that they afford by means of their conscious use, the evidence termed, *perception by sense*.

It is not sufficient therefore for the exhibition of the phenomena of waking life, that there should merely exist some irregular sensible qualities, resembling

those which may result from the action of the organs of sense and motion. Their action must be truly used; there must be the *true* and *unperceived* mechanical action of the five organs of sense; and there must be a mechanical, unperceived passing of the sentient principle, the self from place to place; and this action of the organs, and this motion must be in relation to those things *which fulfil their whole definitions*. And it is of no consequence what place, space, motion, and external things are when unperceived; they are conditions necessary to a result—therefore the real action of the organs, and the true motion of an individual mind must create a change of *self*, in relation to objects which *continue* to exist as the exciting causes for certain sensations or perceptions *in particular*; independant of, and distant from, the powers of sensation in *general*.

The detection of such an action between the organs of sense and the objects of nature, arises from the conscious use of the organs *mixed with the powers of the*

understanding ; for a stream of conscious life, however many, and separate and independant causes may be necessary in order to supply it, yet would appear merely as the idea of self; such causes would properly and truly determine an individual self, and the consciousness of self as their single combined effect. But whatever conscious applications were made to any other existence, power, or quality in nature, as necessary regularly to introduce new ideas and sensations upon this conscious self, would prove, that such qualities, powers, and beings, were wholly unnecessary to the existence of, and therefore no part of self. The five organs of sense, and motion, are such means of application, and therefore, the use of them, and regular returns upon them, afford the criterion of the presence of other exterior and continuous objects than self; and is the only way in which the phrase “evidence of sense,” can with propriety be used. Motion is thus a sort of sense; for motion will ever appear from infancy upwards to be an action in rela-

tion to that space which is outward; i. e. an existence not included in the perceiving mind: the child will consider its arms and legs as part of self; but the *place* in which he moves, the capacity of nature which allows him to move, which he by consciousness knows is not *always in him*, but is always ready to return upon the use of his arms and legs, he *rightly reasons or perceives is no part of himself*, his mind, or conscious existence; but yet must necessarily be *always existing* in order to be ever ready to respond to his motions, and to enable him to use his members without resistance.* I say, the infant perceives

* Since writing this essay, I find that Mr. Destutt de Tracy has many ideas which I am happy unconsciously to have hit upon; but his argument is more confined than mine;—for whereas he considers *body* to be known as a result of that sensation of mind called a *judgment*, from *the comparison of the ideas of WILL, and RESISTANCE TO WILL*; so I enlarge the number of such sorts of *judgments*, by *the comparison of many other ideas*, which I think it is clear are made from the earliest infancy, and even perhaps by the fœtus before birth.

this *relation* amidst his “*ideas and sensations*,” though he cannot analyse or express it, any more than some others who are far removed from infancy.

Therefore, it is the *unperceived* action or *use* of the organs of sense which relates to exterior and continually existing objects, and is the means of determining their qualities to the sentient principle; and it is the consciousness of their use which forms an argument by which men justly infer such permanent existences, and renders valid the phrase, “*perception by sense*,” for the conscious

Added to this, none of the notions are the result of any circumstance which proves the *continuity*, and *independancy* of existences, as well as their *exteriority*. The former quality must be blended with the other two, in order to the formation of REALITIES.

Condillac and De Gerando fall into the same mistake; none of these show any thing beyond the action of such accidental circumstances as determine *will* and its *sense of resistance* — even in dreams.

These authors contain therefore no efficient answer to Berkeley.

use of the organs of sense is rightly to be considered as the effect of their unperceived mechanical action, and this action as in relation to the appropriate objects which affect them : Therefore when the mind is conscious of the use of the eyes, the hands, &c., and of *regular* replies to their use,—*it knows* that there are other external continuous existences than itself present ; and thus the immediate action of the understanding uniting with the conscious use of the organs of sense, *together* form “ THE PERCEPTION BY SENSE,” and *that of a different* “ ORDER ” *of beings from those of dreams and frenzies.*

If the organs of sense (and motion) were not truly used, Berkeley’s own theory would fall to the ground, because they are, according to him, “ *necessary for the spirit to work on by set rules and methods.*” But if the *order* could go on as in dreams, they could not be needed.

“ *In the manner of dreams and frenzies,*” therefore, there is no use for organs of sense, *neither are they used.*

There exists, indeed, some sensible appearances upon the mind, as if the senses had been in use ; but in that state there is a deficiency of the ideas of the understanding, so that images of sense, appear together confusedly *without order* in the mind, which is not in a state to perceive that they can be but fancies.

But in a waking and sane state of mind, the harmony of its ideas, their relations and conclusions, force themselves upon it with a superior and convincing evidence ; which in ordinary life is not weakened by those sceptical suggestions, which a consideration of the strength of the delusion in dreams, prompts to the more curious enquirer. A scepticism only to be corrected by the reflection, that it is not justified by reason, or by that comparison and relation of our ideas, which of whatever difficulty in the performance, can but remain the only method in our power of finding truth, or of forming any proposition whatever.

SECTION III.

Remarks on Dr. Reid's neglect of the consideration of the phenomena of dreams in notions of extension, &c.

Now on the other hand to return to Dr. Reid, when he asks, “if extension, figure, and motion, are *ideas of sensation*,” (saying he gives up the material world, if the question be answered in the affirmative,) he forgets that in a vivid dream these ideas may take place as perfectly as when the mind is awake;—he forgets that every perception of sensible qualities whatever must be a *species*, of which *sensation is the genus*, and can only be the attribute of a sentient being. By an illusion arising from the association of ideas, he joined the notions of the sensations of the sensible primary qualities, (of our sense or consciousness of extension, figure, and motion,) with the idea of their continually existing external causes, as existing together outwardly. For although

he explains himself in some places as conceiving external objects not to be like sensations;—yet he still keeps the notion by saying, that *perceptions*, or *conceptions* are *not sensations*; and that he knows the EXTERNAL NATURE of a primary quality, as well as its inward sensation; as for instance, in *extension*, where the sensation of *moving along a surface*, is unlike “*the hard cohesion of parts sticking together.*” Now *parts*, *hardness*, and *sticking*, are three “IDEAS OF SENSATION” also, and can never explain the nature of the external quality, any more than does the *moving along a surface*.

Thus he considers extension, figure, motion, and solidity, to be qualities of bodies, which are not sensations; of whose real nature when *unperceived*, we have a distinct and clear conception:—Now, there are perceptions of sensible qualities; and perceptions of their relations by reasoning, yet both are but species of sensations. The perceptions of sense, neither immediately, nor me-

diately as signs of conceived qualities, can ever tell us of their positive nature when unfelt, whether they be primary or secondary. *The perceptions of reason*, will tell us, that there must necessarily be exterior objects, and that these must be as various as the sensations they create. But this notion was certainly *not that*, under which Reid contemplated extension, figure, and motion; for he never hints at it. No; he truly thought the senses could suggest the conception of the nature of the real essential primary qualities of matter, without such conceptions becoming sensations, whilst the understanding was satisfied it was legitimate so to do, because “instinct” compelled the mind to such a conception, and resolved the notion into a “*primary law of human belief*,” which could not be disputed without disputing a first principle.*—Yet the material world,

* Against such a doctrine as this, there are few perhaps who might not find a conclusive argument, derived from the experience that every quality whatever (however considered in a waking state as be-

the universe need not be annihilated, although primary qualities (*after* the senses have taken notice of them) should be “ideas of sensation;” as long as the whole “furniture of heaven and earth” (whatever that furniture may be unperceived,) fits out all its variety of *causes* and of unperceived objects, to coalesce with the organs of sense and with the powers of sensation in order to its production.

Thus, what Dr. Reid calls *common sense*, and considers erroneously to be a *sense* or *instinct*, is no more than an *observation of the simplest relations of our ideas*.—It is but a *simple inference of the*

longing to external things,) equally appears in dreams. There will arise extension, figure, motion, hardness, and softness; heat, and cold; colour, and sound: WILL, and *the resistance to WILL*, whether by the resistance of solidity, or the wills of other men.

It is this observation which shews that no conclusive evidence can arise from the arguments of M. de Condillac, and M. Destutt de Tracy, De Gerando, &c. for the reality of an *independant, continually existing* universe.

understanding, after the observation that the use of any organ of sense is needful to let new ideas into the mind, *that the mind itself was not the object of those new ideas*, and that necessarily a *third* object must be the occasion of them. Therefore, *together with the perception of THE CONSCIOUS SENSE*, (which takes notice when it is affected,) there is *the perception of THE UNDERSTANDING*, which observing that the sense *not* being affected by what is properly termed *our mind*, or the mere capacity for sensation in general, the things which are affecting it, must necessarily be some other beings, *extraneous* to both: but this inference which by habit immediately accompanies the conscious use of the senses, is *knowledge* rather than *instinct*.

Now those beings which do not yield any signs of mind or capacities of sensation, but exhibit upon our minds solid extension and other qualities in particular, are termed *material* things;—whilst such beings as yield the notion of their possessing life and understand-

ing, are termed *immaterial* things. As far as these conclusions go, philosophy or the scrutiny of the most rigid analysis will support "*common sense*," or the *simple relations arising from our original impressions*;—but since added to these conclusions, ordinary understandings conceive by a very natural association of thought, that the *ideas of sensible qualities after* the organs of sense have combined with exterior objects to their formation, are the *very external material objects themselves*; it is the business of an analytical philosophy, which intends to shew the entire method of the generation of our notions, to break up this association. For an association of ideas merely, will never *prove* the existence of objects. A notion the fallacy of which some philosophers seem not to be sufficiently aware of.

SECTION IV.

Dreams considered in connexion with the doctrine discussed in “ the Essay on the relation of cause and effect ;” viz. How the mind may form a judgment antecedently to trial of future effects from present appearances ?

Upon the whole, therefore, although the appearances in dreams afford a ground for scepticism concerning the *reality* of external objects, yet this is only on account of the difficulty there is in answering the question, “ By what “ means we can know antecedently to “ trial, how bodies shall fulfil the ex- “ pectations raised by their appear- “ ance.” This question is agitated and answered as well as I found myself capable of doing, in the Essay on Causation ; where it is discussed, “ by what “ means we can detect the presence “ of like compound causes ?” for the objects in dreams and madness, appear the same in all *present* qualities, as real ones ; but they will not fulfil the ex-

pectation of the future qualities their appearance is calculated to create. The same difficulty presents itself in all with which we have to do ; for as truly similar objects would necessarily appear the same, so where there is an *appearance of similarity*, we always consider it as a guiding circumstance by which to form a judgment of the future. In a sane and waking state, we compare such a circumstance with many others, of which when in a dream or frenzy we are incapable.* In the forming of our judgments upon this head, there is displayed every variety of intellect, through every gradation, from that of an almost total absence of it, to the wisest determinations, resulting from the soundest understandings.

But it is equally left for the idiotcy which is deficient in ideas, and that kind of philosophy which *purposely sets them aside*, to conceive the sensible qualities of things to be other than “*signs of those secret powers*” which may be

* See Essay on Cause and Effect.

capable of exhibiting their further qualities, provided they appear to have been *formed* by such methods, as must necessarily determine objects similar to those, which have been heretofore so formed.

The only notion which can create a scepticism upon this head when applied to the objects of our waking ideas, is the impossibility of knowing by *experience*, whether the exterior causes of our ideas are so completely independant of our minds, that *they will continue when these fail*; i. e. whether they are capable of the qualities of such complete exteriority and continuity of existence, that there be no *common* bond of unperceived union in their respective essences.

And if, indeed, the causes for *specific sensations in particular*, were *necessarily mixed up with those* which determined *all sensations in general*, in any one individual, the universe would be dissolved in the dissolution of such individual,

which is inconceivable ; although I hardly dare say we can *perfectly demonstrate* the contrary.

In that case something would bear that relation to our waking and sound state of mind, which the brain does to a sleeping or insane one. Still we cannot in the least apprehend it ; and we are forced upon a dilemma, something analagous to what the mind frames in order to judge of the cause for the rotation of the seasons ; either, we say, “ The sun moves round the earth, or, the earth round the sun ; ” the mind chooses to believe in the latter member of this dilemma, and never doubts after. So, the universe is contained in the existence of a single mind, or there are many minds, and many objects which form the universe, and which have means to exhibit their existences on each other.* The latter

* I find this idea is coincident with one of Priestley's, but I was not aware of his treatise until after the writing of this.

member of this dilemma, the philosopher chooses equally with the peasant, and never for one moment conceives, that on his death, an universal blank and non-existence will succeed.

Mr. Hume, who perceived that Bishop Berkeley's doctrine led to so monstrous a conclusion, owned however that it did so; and although he embraced it, yet he freely confessed that he never acted as if he believed it, "for that the speculations of the closet were forgotten in the world, and that he behaved as if he thought things were truly external to him." This confession adds no strength to their doctrine, and may well embolden one who pretends not to their learning or genius, to shew where was the omission unknown to themselves in the course of their reasoning.

But, however this subtle part of the question may be answered, it does not, in any degree, lessen the demonstrative conclusions of the foregoing arguments, namely,

1st. That things must continually exist in order to be ready constantly to appear.

2ndly, That the causes for particular kinds of sensations, must be external to the causes for its general essence or power.

3rdly, That what is termed the mind is a continually existing essence, capacity, or power in general.

4thly, That what is deemed *in* the mind, is any particular state of sensation at any given period.

5thly, That the causes of things not in any given state of the mind, and yet capable of exhibiting certain qualities upon it, are out of it, whether fitted to create ideas of sensible qualities, or any other ideas.

6thly, That *consideration* is the appropriate method to regain the ideas of memory, &c. but

7thly, That the *organs* of sense are the instruments by which to regain the ideas of *sensible qualities*.

8thly, That of all those things which are *out* of any particular state of mind, those which regularly exhibit sensible qualities upon the use of the organs of sense prove themselves *continually* existing, by such exhibitions.

9thly, That in dreams, &c. there are no such regular returns upon the organs of sense; therefore, though the proximate causes of sensible qualities exhibit their effects, yet there is wanting the proof of the *continual* existence of such causes, by which means they are discovered to be illusions, or objects, different from those for which their names were formed.

10thly, That the independancy which the causes of the objects of sense have of the capacity to general sensation, is proved by their affecting changes of qualities, of which the mind has no conscience.—But I shall finish this long discussion by remarking that this, and similar essays are not intended to prove, that there is but *one method* which God and Nature could employ, to arrive at

the same ends ; but rather to analyse the complex operations of our minds, with such care and nicety, as may show what possibly consistent method has been used in the generation of our belief of external nature ; and afterwards to examine if reason will support the notions, which have been formed concerning it. I shall therefore now proceed to draw that inference from the whole doctrine, which was originally the foundation of the observations in this treatise ; and which although so long deferred, must at length claim that share of our notice its importance demands.

CHAPTER V.

ON THE NATURE OF OBJECTS WHEN
ACTING AS CAUSES.

The action of cause to be considered as external to mind.—Remark on the vague and popular use of the word Cause.—Sensible qualities not the causes of other sensible qualities.—Two kinds of necessary connexion.

I RESUME the subject therefore by calling upon the reader's attention to observe, that objects, when contemplated singly as the efficient causes of nature, are to be considered in their outward unperceived state, and as yet unjoined with each other.

2. That although numbers of objects may be needful towards any result, yet in a popular way, each may be called

the cause of an event, when each is absolutely necessary in order to that result. Philosophy does not get rid of an incomplete manner of thinking on this subject, and thus talks of cause and effect *following* each other, &c. &c. ; whereas it is the *union* of all the objects absolutely necessary to any given end, which forms a *new object*, whose *new qualities* are the *effects*, or *properties* of those objects when uncombined ; and which must be synchronous with the existence of the newly-formed object ; and only subsequent to the existence of the previous objects, when in their uncombined state.—But the entire union of the objects, is always considered, and is the *proximate cause* of any event ; and therefore is one with it.

Now all the exterior and uncombined objects, whose junction is necessary to an event, may be considered as one grand compound object ; and may, under that idea, be termed and spoken of in the singular number : and when contemplated previously to their union may also be considered to be prior in the

order of time, as the cause of a future object.*

In all our reasonings, the word *cause* is rendered ambiguous, by applying it equally to a *part of what is necessary to an end*, as well as to the *whole* of what is necessary; and to existing objects *united* to that end, as well as *disunited* to it; a fruitful source of much unsound reasoning in some of the best authors.

3. The ideas and sensations of the sensible qualities of things, *can never be the causes of other sensible qualities of things.*† It is not the sensible qualities of fire which burn, of bread which nourish; it is not the *idea* or *conception* of the *cohesion of parts* which *cause* the sensation of hardness;—it is a certain number of amassed, unknown, external qualities, which determine to the senses different qualities as conjoined effects—
 “The sensation of hardness is not a
 “natural sign of an external quality of

* This I do presently, in speaking of identity.

† See Essay VI.

“firm cohesion of parts unlike a sensation.”*—It is a sign only of another coexistent *effect* with itself determined from the same unknown, external object. This impossibility of sensible qualities, being the *productive principle* of sensible qualities, lies at the root of all Mr. Hume’s controversy concerning the manner of causation ;† for he, observing that such ideas could only *follow* one another, resolved causation into the observation of

* See Reid’s Inquiry into the Human Mind, c. 5, sec. 5. “Let a man press his hand against the table,” &c.

† It is this view of things which explains the reason of all the difficulty, inconsistency, irresolution, and unsatisfactory discussions upon *cause*, *laws* of nature, &c. in the writings of Stewart, Reid, and others—Even Mr. Prevost, who clearly perceives Stewart’s ambiguity in assigning the same meaning to the word *cause*, as to other antecedents, fails to perceive wherein lies the true nature of *power* ; wherein consists that manner of action between objects, by which there arises “the producing principle” of other objects. See Stewart’s Philosophy of the Human Mind, c. 4, sec. 1, to p. 333. Note O, to ditto, vol. 2, Appendix to ditto, art. 2. Reid’s Inquiry, c. 6, sec. 24.

the customary *antecedency* and *subsequency* of sensible qualities. But objects, when spoken of and considered as causes, should always be considered as those masses of unknown qualities in nature, exterior to the organs of sense, whose determination of sensible qualities to the senses forms *one class of their effects*; whereas philosophers, (with the exception of Berkeley,) and mankind in general, look upon the masses of sensible qualities AFTER determination to the senses as the *causes*, the *antecedents*, the *productive principles* of other masses of sensible qualities, which are their *effects* or *subsequents*; a notion naturally arising from the powerful style of the associations in the mind, and which our Maker has ordained for practical purposes;—but *monstrous* when held as an abstract truth in analytical science.

In a loose and popular way, men undoubtedly conceive the sensible qualities of a loaf of bread for instance, which are determined to the eye and the touch, (through intimate association,)

as existing outwardly, along with the natural substance or particles of bread ; and consider, that *that whole* will nourish them ; but this notion is very different from conceiving that *whiteness* and *solidity* will nourish ; they never do thus think ; they never consider the sensible qualities *alone* as the true causes of nourishment ; and if allowed to think and explain themselves upon the subject, would show that they supposed the same mass which outwardly determined by its action on the eye a particular colour, and to the touch a certain consistency, would, on meeting with the stomach, satisfy hunger :—In short, concomitant, or “ successive sensible qualities,” are considered by all men when they come to analyse their notions, (and ought to be so held by philosophers,) as concomitant or *successive* EFFECTS, *arising from the different actions of an external independant object, meeting either at the same time, or successively, with different instruments of sense with which it unites.*—Thus, the *antecedency* and *subsequency*

of certain respective aggregates of sensible qualities, must *necessarily* be INVARIABLE in like circumstances ; *for they are successive and similar effects*, from successive and similar causes, instead of the *succession* itself forming essential *cause and effect*. *Whiteness, consistency, and nourishment*, are as many *invariable* and *successive effects*, arising from an unknown object, exterior to the instruments of sense, and independant of mind ; which, *formed* after a certain fashion, and meeting successively with the eye, the touch, and the stomach, determines its successive sensible qualities.*

Thus it is in like manner throughout all nature ;—and such a view of the subject would cure the error, which has of late crept into the works of science ; namely, the considering conjoined or successive effects from a common cause, as possessing the nature of the connection of cause and effect.

“ When things are found together, an

* See Locke.

“ultimate law of nature is * supposed “to be found,” and an enquiry after *cause* as a *productive principle*, proves an ignorance of that *new and improved* light which the labours of Mr. Hume, Dr. Browne, and others, have thrown upon the doctrine of causation. Whereas, causes, or objects, previous to their union with the instruments of sense and the powers of sensation, from whose junction are *created* the very sensible qualities themselves, must be exterior to, and independant of both; whilst the regular *successions of sensible qualities*, are in their turn entirely dependant upon the regular successions of such junctions.

4. The necessary connection therefore of cause and effect, arises from the obligation, that like qualities should arise from the junction, separation, admixture, &c. of like aggregates of external qualities. But the necessary connection of *invariable antecedency and subse-*

* See Lawrence's Lectures, from p. 80 to 84.

quency of successive aggregates of sensible qualities, arises from the necessity there is, that there should be invariable *sequences of effects*, when one *common cause* (or exterior object) mixes successively with different organs of sense, or various parts of the human frame, &c.

Of this obvious and important distinction, between these *two kinds of necessary connection*, the authors alluded to take no notice.

But I must now advert to an observation of another description, it being not only necessary for the sake of clearness, but also immediately relevant in this place, where we are speaking of the different notions we form of objects; i. e. when we consider them as masses of unknown, exterior qualities.

I allude to the proper definition and use of the word *idea*—upon which the whole of the foregoing treatise has an influence;* and the understanding of

* M. de Condillac most justly observes, “that
“there is a great difficulty in finding a fit place for

which will greatly facilitate the comprehension of the mystery intended to be unfolded to whoever has sufficient zeal, curiosity, and patience, to undertake a second perusal of these pages.

“ important definitions—If they are entered upon
“ too early, it is before their analysis proves their
“ propriety—If too late, the just views they may
“ include, are wanted in vain for their purpose.”—
This is precisely the case in which I find myself
with respect to the definition of the word *idea*.

CHAPTER VI.

ON THE USE OF THE WORD IDEA IN
THIS TREATISE, AND CURSORY OB-
SERVATIONS ON ITS NATURE AND
PROPER USE IN GENERAL, &c.

SECTION I.

The word idea is used as signifying a distinct class of sensations; as a sign in relation to continuous existences not present to the mind;—Berkeley's ambiguous use of the word.—Objects in the mind compounded of sensations, (by means of the organs of sense,) and Ideas the result of their relations perceived by the understanding.—Evidence for the existence of the different parts of the same object unequal.—Objects of memory how compounded.—The continuous existence of an individual mind, or self, an inference from the relations which exist between the idea of remembered existence, and the sensation of present existence.—The idea of existence in general, how found as an abstraction from each sensation in particular.

I USE the word *idea*, as signifying a distinct class of sensations, being the result of that reasoning or observation which shows

that under certain conditions, there must needs be an existence when we cannot perceive it. In such is included the evidence for *memory of the past*; of such is compounded *expectation of the future*. Thus we have an *idea* of continual, unperceived, independant existence;—but only have a *consciousness* or *sensation* of dependant, interrupted, and perceived existence; whenever I have used it in any other sense, it is in a popular manner signifying notion or object of thought, &c.

Berkeley used the word *idea* ambiguously, for the perception of combined sensible qualities called an object; and for a result of reasoning which yielded him an *idea* that there must be *causes* for his perceptions; which causes he considered *the actions of a spirit*. Thus the word *idea* has been indiscriminately used both by him and others, for the consciousness of the sensible qualities, which arise from the use of the organs of sense, in relation to external beings, and for the conclusions of the understanding, after

surveying the various relations and circumstances, attendant on these sensible qualities. Now objects in our conscious apprehensions are compounded of each of these kinds of ideas; or rather of *sensations of sensible qualities*, and *sensations of ideas*.—They are not only blue or red, sweet or sour, hard or soft, beautiful or ugly, warm or cold, loud or low; but the ideas of their *causes* are included in their *names* as *continually existing*, and *that* even when the organs of sense are shut.

Had I not been fearful of interrupting the main and important object of this Essay, by diverting, and perhaps engrossing the reader's attention in entering on the scholastic and unsettled dispute concerning the meaning of the word *idea*, I should have followed the suggestions of a strict philosophy, by more fully developing the notion, that *all consciousnesses whatever* ought to be ranked under the one generic term, *sensation*; and that these should be divided *into the sensations of present sensible qualities*;

sensations of the ideas of memory, sensations of the ideas of imagination, sensations of the ideas of reason, &c.

Thus simple sensation has many varieties of kinds. When it refers to no other existence than itself, it should be considered as *sensation* properly and immediately. In this sense we have *the sensation of an idea*; but then *idea* refers to an existence always considered independant of sensation; which idea is only its *sign, representative, IMAGE*, or whatever name it may please philosophy to term it. Therefore our sensations include the notion of existences, which *have existed, may exist, will exist, must needs exist*, but whose qualities are not presently determined upon the mind.*

* A strict Idealist who really will not admit the knowledge of any thing but his own sensations, and thus refuses to believe in insentient qualities, ought, if consistent, to reject memory of the past and expectation of the future, and to admit nothing but each sensation as it rises as an existence; for the existences (i. e. the sensations) which are *past*, and to *come*, are as much and entirely exterior to, and independant of, present sensations, as any insen-

Objects of memory are compounded of the fainter *sensations* of sensible qualities, mixed with the *idea* that the causes of the original impressions are removed; (the which *idea* is the result either of observation or reasoning;) these again are united with the perception of the lapse of time, or of our own continuous existence going on between the original moment of the impressions, and the existence of the PRESENT faint sensible qualities. Therefore the *objects* of memory are, *masses of sensible qualities plus the idea of past time, plus the idea of having been caused by causes now removed*. And thus the *idea* of TIME is not itself a mere sensible quality; for although the present moment be but a sensation of

tient existence whatever can be of sensation in general. Both may be known by receiving the evidence arising from the comparison of *ideas*, but they must stand or fall together.—I insert this note in consequence of a late conversation with a modern Idealist, who carries the notion so far as to assert, that there is no *evidence* for any existing sensations but his own.

immediate existence ; yet the past moment is only *remembered* in the present ; and the memory of it is its *idea*, and not the very sensation itself : and this *memory* of past existence, and this *sensation* of present existence, includes in their union a *corollary*, which is the result of a relation that exists between the *idea* of remembered existence, and the *sensation* of present existence ; namely, that there “ MUST NEEDS BE ” a *continued capacity in nature*, fitted to UNITE MEMORY TO SENSE, and fitted to continue existence, which itself is neither memory nor sense ; for each particular memory, and each particular sense passes away—but the powers of memory and sensation in general *continue* to exist, of which each particular memory and sense arises as a change, and “ a change could not BEGIN of itself.”*—“ Thus the notion of TIME

* It is this primeval truth, “ That no quality can *begin* its own existence,” which is the key to every difficulty that concerns the sources of our belief or knowledge.

M. de Condillac’s system, (which I have read

is an idea the *result of reasoning* ; but TIME itself is a capacity in nature fitted to the *continuance* of any existence."

Again, *ideas of imagination* are faint images of sensible qualities *unmixed with any notions concerning time* ; whose causes are considered as at present removed from their operation on the senses ; and variously compounded by the influence of fancy, or rendered more or less *vivacious* by its power.

Thus the objects of memory and imagination differ as to the *nature of their* COMPONENT PARTS, and not

since writing these papers,) notwithstanding its extreme beauty of conception, and close reasoning in general, falls in my judgment very early to the ground ; for he supposes *the statue* " to generate the *idea of SELF* by the perception of the *succession* of faint and strong scents only." This is a most important oversight—*Self* is always considered as a *continuity*, and is generated by the sense of continuous life, and the idea of its continued object which is the subject matter of all the changes.—So well was M. de Condillac aware that this notion was necessary to prove exteriority, that he shifts his *ground* in the chapter upon touch.

merely as to the comparatively higher *vivacity* of those of imagination:—A *puerile* notion, on which however Mr. Hume has reared the whole fallacy of his system with respect to that BELIEF by which expectation of similar future effects arises upon the presence of similar causes.—He argues, that because what are called *real* things yield *vivacious* images, therefore the mind considers all vivacious images as *real*; and thus BELIEVES in those future qualities of things, which are *associated* in a *lively* manner by *memory with present impressions*.

Berkeley has also this fallacy in answering the objection made to his doctrine when his adversary advances, that *mere ideas* cannot be real things, namely, “That the superior order and *vivacity* of some ideas above others make the whole distinction between what the vulgar deem real, or illusory objects.”

Now *vivacity* being one of the qualities usually accompanying the objects which impress the sense, it must necessarily belong to such, as a component

part of their whole *effects*, and therefore, other things being equal which influence the judgment, *vivacity* of sensible qualities, will as one of their *effects* be ever referred to such objects; and the remainder of their qualities will be *expected* to be fulfilled in consequence. BELIEF, therefore, (in this case,) and expectation in consequence, arises, 1st. From the necessity that like *effects* should have like causes; and 2ndly, From the *probability* that such should be conjoined with such apparent causes as those with which nature usually unites them; and therefore will fulfil the remainder of the definitions, which the complex exterior objects bear: and this trust in the regularity of nature in forming her compound objects alike, is on account of *regularity* itself being an *effect* which must have its *equal cause*. So little is merely a *vivacity of image* trusted to in a sane and waking state of mind, as indicative of the real presence of the exterior objects which influence the sense, that the mind, in

many cases, perceiving surrounding circumstances *differ, justly doubts upon this matter.*

Then thirdly, *the ideas which are the result of reasoning testify, as mere signs, the existences of things, which are not sensations.*

Now objects in the mind are aggregates of the *sensations* of sensible qualities, and of the *sensations* of the IDEAS of memory, reason, imagination, expectation, &c. variously compounded: And hence there arises a reason why the evidence of the *certain existence* of different parts of the same object must *necessarily* be UNEQUAL. For the sensible qualities have an immediate incontrovertible evidence, from the consciousness of their immediate presence.—They are felt—and the *feelings* are themselves the very existences.—But the evidence from memory, and reason, can never rise higher than memory and reason are capable of testifying.

These sensible qualities equally exist in an hallucination of mind, as in its

sane state, and however incongruous they appear they do and must exist; but if a conclusion be drawn amiss in reasoning, if the memory be treacherous, or the judgment erroneous, then in such cases, these false ideas being mixed up and associated even with the most clear and orderly set of sensible qualities, would render the *evidence* for the existence of such an *object*, (or aggregate of various qualities,) *ambiguous and unequal*. Thus it cannot be denied but that the *whole* objects present to our consciousness, contain *parts of* UNEQUAL *evidence as to their existence*; some of which sometimes failing, yield a just ground of scepticism;—a scepticism, which however, should never rise higher nor extend further than the *irregularity* of nature justifies; for *as is the effect, so is the cause*—the balance of regularity, and irregularity, we hold in our hands; these are *effects*, and their causes must hitherto have been equal to them, and unless some interference is observed, or supposed possible, should reason-

ably beget in the mind a *proportional* reliance for the future. But if in any instance whatever, there had been hitherto perfect regularity, yet it would not thence follow there were an equal demonstration for the future ; and *that* because we are ignorant of the *cause* for the regularity ; and cases might be supposed in future to occur, where a difference would be absolutely necessary in the *apparent course of nature*, or *providence* to take place. We have very strong evidence which goes to prove that single varieties, to otherwise universal experience, have taken place with respect to both kinds. That is, there have been *single exceptions* to universal experience, *which seem to have had no precise end in view*, nor to have contributed to any end whatever ; AND THERE SEEMS TO HAVE BEEN OTHERS WHICH HAVE BEEN MADE USE OF, AS MEANS TO AN END, AND WHERE MOST MATERIAL EVENTS HAVE ENSUED IN CONSEQUENCE.

The former kind, when well attested,

men seem not to find any difficulty in believing ;—of the latter they are infinitely more incredulous and jealous in receiving the testimony.—Indeed, it must be allowed that a *marvellous event* becomes a very different object of attention when it presents itself to our notice, not merely as singular of its kind, and one whose causes are not obvious, but, also as one which by its *manner of production*, forces the mind upon the *inference*, that as the apparently immediate cause is inadequate, therefore certain other alledged causes both adequate and necessary are the true ones.* In each of these cases there are true *miracles*; i. e. *marvellous events*, singular exceptions to nature's course ; but the latter only affords what ought to be termed *miraculous evidence* to a doctrine ; or in other words *a similarity in the course of nature, with respect to the necessity and action of efficient cause, but a variety from its apparent regularity, in order to be used as a means towards a specific end.*

* See further, the Essay on Miracles.

This difference between the *singularity* of an event and its *intention*; between an insulated and surprising *fact*, and the object to be gained by it, is not shown (that I know of) by writers on this head. That there are such facts without any doctrine being in question, which are attested and reasonably believed in (and that “*with full assurance of faith,*”) at once dissolves the whole fabric of Hume’s *argument* on the matter; and that whether a doctrine be *true* or *false*,—whether there be religious miracles or not: because he points his force against the absurdity of admitting evidence which testifies to the occurrence of an event, *DIFFERENT from the course of experience*; *OUT of the order of the apparent train of cause and effect*, and which he terms the *course of nature*. Whereas men very well know that nature, whatever her apparent course may be, still keeps them “*at a great distance from all her secrets* ;” from the knowledge of the precisely *efficient cause* acting in any particular case, and there-

fore, that there is nothing contrary to her *real* course, (by means of some secret efficient cause) that singular varieties should take place; and for this reason they conceive that evidence ought to be admitted on the subject. The examination, reception, or rejection of evidence on it, tries the intellects of men much in the same way as other things do, but their hearts still more when it concerns the subject of religion.

It thence follows that a regularity with respect to certain events in one country, does not *prove* there must be the same regularity in another. Nor does that which is a regular appearance at one age of the world, *prove* the same must exist in all ages of the world.

Nor do the usual actions of God's providence which are most wise in order to our reliance on his modes of operation, *prove* that he will never alter his action, if he should intend to convince us in any case of his immediate presence. But to return to the more immediate object of this chapter, it follows

from the reasoning adduced in it, that both Mr. Hume and Dr. Reid are wrong in their notions arising from the observation “ *that the real table can suffer no alteration, as we recede further from it, although it appears to diminish.*” * Mr. Hume hence argues, that we cannot see a *real* table, but the *image* or IDEA of a table only; and that thus “ *we can have no absolute communication by the senses with external objects.*”

And Dr. Reid answers, “ *that we have such communication, because a real table would by the laws of optics, thus diminish upon the sight.*” Now the truth is, that no real table is formed, no image of a table is formed, unless the whole united mass of the unknown objects in nature exterior to, and independant of the instruments of sense, (not yet worthy of the name of “TABLE,”) unite with the mechanical action of these, and by their means with the sentient principle, in order to *create* in

* See Reid “on the Intellectual Powers,” for Hume’s objection, and Reid’s answer.

such an union that object which alone can properly be termed “TABLE.” Yet *after* experience, *the* OUTWARD OBJECTS, the CONTINUALLY EXISTING PARTS of the whole causes necessary to the creation of a *table*, must be named by the name by which the whole is named; for there is no other name whereby they can be called, nor any other *ideas* by which the *memory* of them can be introduced into the mind, save by the appearance of “the faint images of those sensible qualities” which their presence originally created.*

* See page 137.

CHAPTER VII.

APPLICATION OF THE DOCTRINE CONTAINED IN THE PRECEDING ESSAY TO THE EVIDENCE OF OUR BELIEF IN SEVERAL OPINIONS.

SECTION I.

The foundation of our belief in God.

ASSUMING I have proved to the satisfaction of the reader, the existence of “body” and of the “external universe,” it remains to point out a few inferences from the doctrine, of sufficient importance to justify a further intrusion upon the patience of the reader; and which have always equally interested the minds of the learned and the unlearned. These principally relate,—

1. To the existence of Deity.
2. To our own identity; and the nature of body and mind.

3. To that intimation which the mind receives of outward objects not yet supposed to exist, but with respect to which all ideas of delusion are rejected, such as prophecies, instincts, &c.

4. To the comprehension of the NATURE *of the unperceived* causes of our sensations.

1. As to the existence of God, let it be remembered that all our *belief* concerning every proposition, is the result of what we conceive to be the consistent relations of ideas present in the mind. Now I have shown, that these relations force our minds to believe in continuous existences unperceived. It is upon similar premises that we build the foundation of our belief in Deity. For after some contemplation upon the phenomena of nature, we conclude, that in order to account for the facts we perceive, "there must needs be" one continuous existence, one uninterrupted essentially existing cause, one intelligent being, "ever ready to appear" as the renovating power for all the depend-

ant effects, all the secondary causes beneath our view. To devout minds, this notion becomes familiar and clear; and being mixed with the *sensible impressions* of goodness, wisdom, and power, begets those habitual sentiments of fear, trust, and love, which it is reasonable to perceive and to enjoy. Our constantly familiar friend, whose presence we speak of, and whose qualities we love and admire, affords us no further proof for his existence and his qualities, than the reasoning adduced in this book:—He must needs be another being than ourselves, having qualities which are not our own, but *his*, that are sufficient to engage our sympathy, or the relations of our thoughts would be rendered inconsistent with each other.

SECTION II.

*The knowledge of our own independant existence—
how gained.*

Again, the idea of our own independant existence is generated by observing, that the compound mass we term SELF

can exist when we do not observe it; and we have thus the *idea* of our own existence, in that it needs must CONTINUE to exist when *unperceived*, as well as during the *sensation* of it when perceived. Besides, on this subject, as every other, it is to the *causes* for the *constant* effects, (the objects whose union shall bear out similar results,) to which there is a tacit reference as the *true* and *continued existences in nature* :—

Now the *causes* for the general powers of sensation cannot be the same as those for any particular sensation, and so must be independant of each ;* and indeed each sensation is always *felt* as an effect, as “ *beginning to be* ;” therefore what we allude to as *self*, is a continued existing capacity in nature, (unknown, unperceived,) fitted to revive when suspended in sleep, or otherwise, and to keep up during the periods of watchfulness the powers of life and consciousness, especially those which determine the union of memory with sense. For as sen-

* See p. 83, 84, “ It is such a perception,” &c.

sation is interrupted, and is an *effect* ; the original cause must be uninterrupted ; and such an uninterrupted cause as is equal to keep up the life of the body, or mass deemed our own body, and to unite it under that form with the powers of memory and sense : Identity, therefore, has nothing to do with *sameness of particles*, but only has relation to those powers in nature (flowing from that continuous Being the God of Nature,) which are capable of giving birth to that constant effect, the *sense of continuous existence* ; which sense, when analysed, is the union of the *ideas of memory*, with the *impressions of present sense*. Should it be objected that the causes for such an union might be interrupted ; then as these would “ *begin their existences*,” and would *only be effects*, the mind would go backwards till it reposed in some *uninterrupted* cause, and would consider such, and such only, as an independant capacity in nature, fitted to excite the union of memory with present sense, and as the complicate being *self* ; which

when conscious, could take notice of its existence, and when unconscious, (as in sound sleep) could exist *independantly of its own observation.*

SECTION III.

Observations on the essential difference between body and mind.

Hence also may be seen all the *essential difference between body and mind*;—BODY is the *continually exciting cause*, for the exhibition of the perception of *extension and solidity* on the mind in particular; and MIND is the CAPACITY or CAUSE, for *sensation in general*. And these two must be different in “their proportions among themselves,” (in their unperceived state,) as well as in their “*positive values*” in their perceived state.* Now whether these *causes* or capacities can exist separate from each other, is the question which is always asked, and still remains unanswered in

* See p. 38.

philosophy. Abstractedly there seems no hindrance for such separate existence. *Practically*, sensation in *general* is never known, but in company with that which excites the *sensation* of *extension* in particular, and which seems so much a part of the whole causes necessary for sensation in general, that under the form and action of the brain, it only seems capable of being elicited. Still we know not whether in many other beings, sensations may not go on without brain, and whether, where ideas have once been generated through its means, some other causes in nature may not be equal to keeping them up—analogous to the power there is in this state of being, by which we recollect the images of colours, and sounds; of beings, or virtues, &c. &c. without the use of those organs of sense, which were at first necessary to the formation of such notions. It is here Mr. Lawrence is illogical, for he assigns a “*false cause*,” an *unproved cause* as the foundation for

sentieney, when he ascribes it as the quality of the living nerve *only* ; for we do not know by any experience we have, that *all* and *only*, what we mean by *nerve*, will elicit sentieney.* We cannot produce it by any means in our power ; it has been begun and is continued, without our having had any part in the consultation which took place when God said, “ Let us make man in our image after our likeness.”

I confess I think the further we extend our views into the regions of metaphysics, the more possible and probable does the resurrection from the dead appear ; or at least an existence analogous to it. For it is evident, more is wanted for the capacity for sensation in general, than that exterior cause which is necessary for the exhibition of *extension in particular* ; which extension in many varieties appears *insentient*. Various effects must have *proportional* causes, and therefore

* See Locke's Essay on Human Understanding, b. 4, c. 6, s. 17.

there must be some extraneous reason for sentiency, beyond what is absolutely necessary for mere insentient extension ; —Yet it has been said, extension seems to form a *part* at least of that combination of powers which elicits sentiency. Now if the causes for sentiency, *minus* the brain, find in the great womb of nature, any other cause equal to the brain, a finer body, an ethereal stimulus, or any thing which may *help to unite memory with sense*, then the difficulty attending the notion of the resurrection vanishes.

It would appear therefore equally inconclusive for man to argue against the possibility of a future life on account of the dispersion of the particles of the present gross body by death, as for the worm to suppose it could not again live because its outside crust wholly perishes :—He might resist every notion (however prompted by his instinct or his wishes,) of an existence beyond the range of his present experience, beyond the extent of the leaf on which he is

born to die; yet the time would equally arrive, when as a winged insect he would roam through boundless space in comparison of the circumscribed spot to which his former existence was confined, and chase the brilliant image of himself, through a live-long summer's day, amidst the sweets of a thousand flowers.

Man in his present state, feels occasional aspirations towards another, prompted by the craving want of some unknown unimaginable good, of which he has no intimation but from the consciousness of an unsatisfied capacity:—Let him not then too easily reject the belief that this capacity has a corresponding object, that his nature is capable of a nobler modification, a higher flight in more exalted regions than this, and enlarged as to every power of action, thought, and enjoyment.

SECTION IV.

Cursory observations on instincts and prophetic vision.

Instincts * give notions of *real* beings, if the objects to which they point fulfil their whole qualities. It is consistent with the previous doctrine, that instinct be an action of the brain excited independent of impression, in the first instance from external objects, but afterwards capable of being kept up by their means. For as the brain is the exponent of the soul, so any of its actions whatever, being either the effect of an impression from an outward object, or brought about by any other cause adequate to a given action, would equally give rise to the idea of the corresponding object; as in dreams, &c. But in dreams the objects do not fulfil the whole qua-

* As for instance, the instincts of birds give them notions of the materials requisite for making their nest previously to a first formation.

lities expected of them, from the first impressions made upon the mind: in instincts it is otherwise—for after the first impressions begin to fade, the images can be renewed by the acquaintance made with those external objects, which are not only capable of fulfilling the first expectation formed of them, but also of affording a regular and constant reply to the demands of the organs of sense.

In like manner, prophecy is also true prophecy, if a lively action of the brain, does through any cause whatever which produces it, testify the future existence of such things as do really happen afterwards, in such fulness, and order, and perfection as renders it improbable that the coincidence of the prophecy and the events which arrive, could take place by chance. The probable evidence before the accomplishment of a prophecy that it will be accomplished, must arise from a number of collateral circumstances, which, after accomplishment,

have much to do in rendering it of interest, veracity, and importance.

SECTION V.

On the knowledge of the nature of unperceived objects.

With respect to the nature of unperceived objects I shall take notice, that we can form some ideas of their *natures* by *subtracting from them* EQUALLY that which is common to all, viz. the action of the instruments of *sensè and the mind*. For although it be true that nothing can be like any sensation, but a sensation ; yet it does not follow, but that there may be qualities connected with our sensations, and arising out of them, which we perceive have not sensation for their essence, and so may belong to insentient natures. Now it is by separating the idea of sensation in general from the ideas of particular sensations,* that we gain the notion of exist-

* See the short essay, That sensible qualities cannot be causes.

ence which need not necessarily be sentient;* for as the capacity for sensation in general, or *mind*, cannot be contained in any one sensation in particular, so it cannot in all; and therefore in like manner, as there is one eye, but many colours and figures, so there must be one *capacity*, but many sensations—one *continually* existing power, of which these are but the changes.†

Again, as variety does not depend upon sensation as its *essence*, so we perceive that *variety* may take place among any supposed existences whatever; and not only so, but that the quality itself of *variety* when unperceived, will be *like* perceived variety, in as far as it is *variety*; and that such a quality must necessarily exist amidst that set of wonderful objects which is neither contained

* See the note page 42 of the essay on cause and effect, and pp. 42, 83, 84, 182 of this essay.

† It is supposed here that the reader has acquiesced in the Doctrine of the foregoing Essay, “That qualities cannot *begin* their own existence,” and that the *union* of qualities or objects is necessary to form new existences.

in the uniform capacity called mind, or the uniform action of the organs of sense, and which therefore we justly consider as forming AN UNIVERSE *independent* of both.

Thus the *ocean* must be *vast*, in comparison of a drop of water, when both are unperceived. *Time*, in union with the powers of sensation, may be measured by a succession of ideas in the fancy; but *time* in *nature*, and *unperceived*, measures, and is not measured by, the succession of events, whether sensations or not; as the revolution of seasons; the birth and fall of empires; the change of harmony to chaos, or of chaos to harmony.—Again, subtract the organs of sense, from the most minute divisions of matter, and they are only little in comparison with what is large; and the question concerning the infinite divisibility of matter, resolves itself into the impossibility of the imagination conceiving and *not* conceiving of a thing at the same time—for the conditions of the problem are, that something is to be imagined

too small for the imagination to conceive; and to imagine it under the forms of an extension, which extension is not conceivable when unperceived either by the senses, or the imagination; whereas we know not what extension unperceived is, although I am willing to concede a *mite* cannot be the *same as the globe*, not only with respect to that condition of being which, *when exhibited upon the eye or touch*, yields the *notion of extension*, but which, when subjected to calculation, manifests that in its unknown state, it must be liable to *that variety*, which *when perceived*, is called *size or figure*, and becomes altered in its dimensions: still when that *unknown being matter* is in its unperceived state subject to that condition or state called divisibility, when fancy has done its utmost, and attempted a conception of *inconceivable* subdivisions, perhaps such a portion of matter is a world, and is an unknown quantity of “something,” (as Hume calls it) supporting the means of life to millions of beings under no man-

ner of relation either to our senses or minds.

It is here that it would be proper to show more fully and distinctly than has yet been done, what is the error of Bishop Berkeley's doctrine, concerning the knowledge we have of external objects, and to call upon that which has been laid down in these pages, to point out where the fallacy lies in his reasoning, which at once is considered as unanswerable, and nevertheless at variance with the common experience of life.* But it is impossible to place his curious system in a proper light, or render the argument against it apparent, without some extracts from his *Essay on the Principles of Human Knowledge*. I would rather do this in a detached manner, than introduce it here, and then take the opportunity of showing a little more at length than would now be convenient, the manner in which the

* Mr. Hume calls it a doctrine which equally fails to enforce conviction, or to suggest an answer to its fallacy.

foregoing doctrine enables me distinctly to point out, how obvious an answer presents itself to those points of his doctrine, which from a lapse in the reasoning fail to produce conviction; and how truly consistent, and philosophical, and accordant with experience, is the rest of his matter, however much it may vary from commonly received notions. I shall therefore throw these paragraphs, with the observations annexed to them, in a short and distinct essay; and shall conclude, for the present, this subtle, complicated, and, I fear, fatiguing subject, with a concise summary of the doctrine.

CHAPTER VIII.

RECAPITULATION.

The perception of independant, external, and continued existences, the result of an exercise of the reasoning powers, or a mixture of the ideas of the understanding, with those of sense.—External objects unknown as to the qualities which are capable of affecting the senses.—Known as compounds of simple sensations, mixed with ideas of reason or conceptions of the understanding.—Reply to an objection concerning extension.—There exists, however, one set of exterior qualities, which resemble such as are inward; these are variety—independancy—existence—continued existence—identity, &c.—Exteriorly extended objects, cannot be like the idea of extension.—An appeal to the phenomena of the diorama as an evidence for the truth of these notions. The ideas of this treatise do unintentionally coincide with some mysteries of religion.—Conclusion.

THE perception of external, continually existing, independant objects, is an

affair of the understanding ; it is a mental vision ; the result of some notions previously in the mind, being mixed with each sensation as it arises, and thus enabling it to refer the sensations to certain reasonable causes, without resting merely in the contemplation of the sensations themselves ; by which it comes to pass, that names stand for these compound mixtures ; and that the organs of sense are the instruments which immediately detect the presence of those things which are external to, and independant both of the organs of sense and the mind.

I consider the chief proposition, thus used as a mean of quick and constant reasoning, applicable to, and immediately associated with, certain exhibited sensations, to be that which comprehends the relation of cause and effect.

By these means, there is the reference of *similar effects to similar causes*, and of *differences of effects, to proportional differences in causes*.

That class of ideas which Dr. Reid

terms instinctive, and Mr. D. Stewart considers as composed of simple ideas not *formed* by the senses, but generated upon certain *fit occasions* for their production, I consider to be the conclusions of a latent reasoning;* as the mere results and corollaries, included in the relation of those ideas and sensations already existing in the mind, and which were previously formed by the senses. The idea is very soon learned, *that it is a contradiction to suppose things to BEGIN of themselves*; for this idea is occasioned by the impression, (the observation,) that the *beginning* of every thing is but a change of that which is already in existence, and so is not the same idea, (the same quality,) as the *beginning of being*, which is independant of previous being and its changes. The two ideas are therefore *contrary* to each other; and the meanest understanding perceives them to be so, as easily as it

* Since writing the above, I find M. Destutt de Tracy of my opinion.

perceives that white is not black, &c. *Changes* therefore require beings already in existence, of which they are the affections or qualities ; and children, peasants, and brutes know and perceive these relations, though they cannot analyse them.* The mind therefore taking notice of changes, refers them to objects of which they are the qualities.

Thus a very young and ignorant person will soon perceive, that the various sensations of which he is *conscious*, are mere *changes* in relation to some other objects in existence.

Such an one on hearing himself speak, or sing, will not consider the sensation of sound apart from its cause, or the *object* of which it is a change, and on hearing another voice than his own, will refer such *variety* in the effect, to a proportional variety in the cause ; for here his consciousness tells him, that the sound is not formed by the

* M. D. de Tracy considers children as capable of perceiving a relation between two ideas, as of their original perception.

same means which formed the first sound, yet it appears in many respects a similar effect ; therefore, he concludes that in as many respects there are *similar* causes, i. e. similar objects of which there has been sound as a change : and in some respects the effects are diverse, therefore, the causes are equally diverse ; i. e. are uttered by another being than himself, thus concluding another being like himself to be present. The same method regards the perception of every sense, and the objects in relation to it ; and I consider primary qualities of matter, in this respect, to be upon the same footing as those which are secondary : Objects are therefore, *beings like ourselves*, plus or minus the *differences* ; in as much as *they are the proportional causes of the sensations which they create*. Thus we can but virtually touch causes, and that is by reasoning. And as the knowledge of external nature is but an inference from reason, either from the relation of cause and effect, analogies, probabilities, &c. so its abso-

lute independancy of each mind, can have no further certainty than such inference, however strong it may be, can afford. Indeed, in one point of view, such complete independancy as should suppose the annihilation of any one essence in nature would appear impossible; one change is independant of another change, a man may die, and his child continue to live; but I conceive the frame of nature so completely one whole, and all its changes but such constituent parts of it, that either, on the one hand, it must be wholly impossible for a true annihilation to take place of the essential and permanent existence of any part; or on the other, that if it were possible, the whole must be destroyed together.

Now, although the reference of like effect to like cause be absolute demonstration, yet it may be, that in some instances, we consider *effect partially*; referring some like effects not only to like causes, but to compound objects with which they are usually associated;

and which objects will exhibit *other effects*, for which there may not be sufficient proof or likelihood; also the very comparison of what is like, to like, supposes an ability to perfect comparisons, a subject on which we frequently make mistakes. *Independant* existence is then, however, a conclusion of reasoning; an idea in the understanding in relation to the perception of the necessity there should be like cause for like effect, and proportional causes for proportional effects.

Again, as to the CONTINUATION of the existence of *independant objects*, the original causes and capacities for every thing must be concluded as uninterrupted, *as long as effects are renewed at intervals*; it being a contradiction *that such effects should begin their own existences*. Therefore, the perception of the *continued existence* of objects is also in relation to the knowledge of causation, and is an idea gained by the understanding by reference from reason. *Outward existence*, is *the perception of a con-*

*tinued independant existence in relation to motion, from our own minds taken as a centre whence we set out ; the which motion is a sort of sense, whose sensible quality merely, could not immediately yield the notion of unperceived exteriority, unless mixed with the powers of the understanding, which refer its sensible quality to an unperceived cause, in the way that has been described to be the case both with respect to itself, and to the other senses ; by which means they are considered to interact with those things known by consciousness not to be minds. For motion is when unperceived a capacity or quality of being, in relation to those various objects which are proved to be continually existing by their regular reply to its action.**

And when motion is considered in relation to empty space merely, it is also perceived to be in relation to a mode of existence, proved by the same

* See this Essay, p. 83, 84, and from p. 102 to 107 ; “ It is not sufficient therefore ; ” also Essay VI.

process of the understanding to be *continually existing*. For as the exteriority of space, or distance between objects, replies regularly to the sense and use of motion, so must it be regarded as a *common quality to all* objects, having its own *unperceived essence*. Although, therefore, the instruments of sense, and motion, can only *after* their action form *sensible qualities*, “ideas of sensation,” yet their use *immediately* gives notice of outward, insentient, and unperceived existences;—because the understanding being supposed correct in the notion that such “*must needs exist*,” in the manner explained at large in this treatise, informs the mind that it is with these continuous *unperceived* existences, that the organs of sense and motion themselves also as unperceived existences interact *in order to the perception of their sensible qualities* when the whole union touches the sentient capacity.* But it is motion, as first in order, and first in proof, which is impowered to detect the OUTWARDNESS of ob-

* See pp. 54, 55, &c.

jects:* because those things which return upon the application of motion to the sense of touch, are by that *necessity* of motion in order to apprehend their tangibility *justly defined as distant* from

* It is here I differ with several French authors whose works I have met with since writing this treatise, with M. Destutt de Tracy, Condillac, de Gerando, &c.

The sense of the resistance of solidity to the sense of voluntary motion, no more proves the exteriority, independancy, and continuity of objects, than the reply of colour to the use of the eye. The will is no more self, than is the eye, or the hand. The five organs of sense in their conscious use, afford by the phenomena which take place in consequence, an equal proof of these attributes belonging to those constituent parts of the whole causes of our sensations, which are by consciousness known not to be contained in the mere possession of the mind itself, and in the motions of the five instruments of sense. For these latter can exist and act without certain given ideas, therefore the REMAINING NECESSARY PARTS of the whole cause of such ideas, are independant and separate from them. Such also regularly reply to irregular applications, in relation to them, therefore, continue in their existence. This is the argument, and it applies, equally to each of the five

the mind which apprehends them,* for every distinct quality may be named as we please according to its variety of appearance. But it is these distant continuous existences, which exhibit their qualities, one quality, that by the ear is perceived as sound ; another, by the palate as taste ; a third, by the nostrils, as smell ; a fourth and fifth, by the eye, as figure and colour. Nevertheless these distant independant beings in relation to motion, are wholly unknown as to their *unperceived* qualities, which yet we immediately *perceive must exist by means of the sensible qualities* they excite, and which are associated with the *ideas* of their causes. It is not, therefore, colour only, but all sensible qualities whatever, which are carried *out* by an act

organs of sense, as much as to the sense of touch. The touch would not prove this point, without a mixture of reasoning : and which reasoning would be sufficient to draw the same result from the phenomena of the other senses.

See Destutt de Tracy *Ideologie*, p. 114, duod.

* See p. 57, &c. of this Essay.

of the mind, and considered as proportionally distant from the mind, as is the quantity of motion required to attain them in their *tangible* form, and as immediately coalescing, and inhering in and with those independant objects.* Infants very soon perceive motion to be in respect to existences, which are not included in the idea of themselves; and which they also very soon conceive to *continue* to exist unperceived, as they are “*ever ready to appear*” upon the *caprice of their action*; that is to say, the influence of *thought* or *conception of ideas*, is soon mixed with *simple sensation*, forming thereby those complex beings called outward objects; (I may say, those perplexing beings, at once ideas of the mind and existences independant of it!) Now the understanding perceiving that independant continued existences, are not the same beings as those which are included in our

* See Essay 4th, on the union of colour and extension.

own sentient natures ; that they are not *merely* sound, colour, &c. *places* them beyond, (that is, considers them as existing under a capacity of being independant of) every source of our own sensibility ; viz. out of *the limit of the definition of our bodies and minds* ; associating with the *ideas* of their distances their whole sensible qualities.

I now repeat this reasoning is also applicable to the primary as well as the secondary qualities. For what are “ parts in cohesion or extension,”* when separated from that external independant existence which the understanding allots to the unperceived unknown *causes* of these ideas in the mind, and from their relation to motion, (which when unperceived is also unknown as to its nature,) but “ *ideas of sensation*” exhibitions of colour and of touch, &c.

Nor will it be a reasonable objection to say, (as Dr. Reid does) “ an idea cannot be extended and solid,” for the proposi-

* See Reid’s Inquiry.

tion concerning the perception of external qualities, intends to assert, that the idea of extension as a sensation *independant of its cause* is not an extended or solid idea, any more than the idea of a colour is a coloured idea; or of a sound a noisy idea.

For although the qualites are understood to be created by their exterior causes, yet these qualities are but effects;—a certain “*idea of sensation*” is not coloured, it is colour—does not emit a sound, it is sound—does not exhibit extension, it is extension, and so of the rest. They are all simple sensations, created by causes which the understanding concludes to be external and independant of self; and are in relation to motion and the five senses, for the exhibition of their appropriate effects, and having corresponding proportions among themselves. Parts, therefore, are unknown powers, save that they exist in relation to motion, to touch, and other affections, the which when unperceived are still also unknown powers, *save in their existences, their mutual rela-*

tions, and their proportional varieties. For there exists *one* set of exterior qualities, which we may know of, as resembling such as are inward.* They are the same as those, which affect the sensations, and which the understanding can apply to every kind of existence, sentient or insentient. Such is that of *variety*; we perceive variety amidst our sensations; but other existences might also be various; and being so, we intimately and *immediately* know what variety means. The same of *independancy*; one sensation may be independant of another, so may any other existence, and we know what quality it is we speak of, when we predicate independancy of unperceived existences.

Existence is upon the same footing also; existence of a sensation is in the very exhibition and conscious feeling of a quality. But the idea of existence *in general* is the very being of any quality whatever, as barely contrary to non-existence.† This *idea* of existence

* See p. 162.

† See p. 42, 162, 163, Essay VI.

is gained by comparing the consciousness of successive sensations *with the idea** of *non-existence*; which idea is also generated by the means of their successive *disappearance*. Thus, the idea of existence is a more *general idea* than that of *the idea of sensation*, for as each sensation in particular successively ceases to exist, so they all must; and as they do not begin their own existences, so they are but changes of *something* which is neither *any one*, nor *yet the whole* of our sensations: therefore, sensation is not necessarily existent, but existence is something which is not included in any consciousness, and is the general quality of which sensation is the accident, or exponent; instead of sensation being a mere synonymy with existence, as I have heard contended.

Therefore an unperceived quality may exist unfelt, and in that quality of existence, can be conceived of when un-

* See p. 50, concerning negative *ideas*.

perceived, as similar to perceived existence: Also in a more popular and practical way, we judge that another mind might not perceive our sensations, nor we the sensations belonging to another, yet that both would equally exist in relation to each unperceivedly. *Continued* existence is likewise subject to a similar observation, and signifies that no interval of time, interrupts the existence of a particular quality; such an affection may belong to unperceived as to perceived existences.

Identity, or the continued sameness of a quality, may be predicated of an unperceived quality, and there may be other affections liable to similar reasoning, which at present do not occur to my mind, unless it be the relation of cause and effect, which may equally exist among insentient as sentient natures. The reason why these unperceived qualities, may *resemble* those which are perceived, and not any of the primary or secondary qualities of bodies (relating to the five organs of

sense) be resembling in their perceived and unperceived state, is because the external qualities which are in relation to the senses and mind, require their aid to *modify* them ; and that which is *altered* cannot be the *same* as when existing *previous to alteration*.

Unperceived, unconscious, extended parts, (whatever parts unperceived may be,) cannot be *like* the idea of extension. But among sensations themselves, *after* their determination upon the mind, there may exist relations which the senses have nothing to do with, have *not* altered, and which may be applicable to any existence whatever :—Putting all these things together ; the colouring of a scene in nature or art, is in relation to real or supposed motion—and motion is conceived in relation to existences independent of self ; therefore colouring will always be seen as though it were outward, and therefore conceived of as thus by the imagination. The organs of sense convey sentient existences internally to the inmost recesses of the

soul: the understanding reacts upon them, and places all things without it in similar proportions. If this proposition were not capable of proof by abstract reasoning, the exhibition of the Diorama now before the public (of a scene of natural size from nature, and another from art,) would be enough to prove that colouring is placed in proportion to the position of *things among themselves*; and such positions are as the capacities of distance, and the powers of motion *in relation to us*, as well as *among themselves*: The scene, independant of the understanding, is a scene of mental sensation; for when the mind is for a moment deluded, (of which I speak from experience, knowing that this extraordinary fac-simile of nature and art has the power of effecting a complete delusion,) and forgets the *place* in which it is—the relation of place being forgotten, the scenes are conceived of as *real*; i. e. the colouring is symptomatic as a quality of beings, which will fulfil the remainder of the qualities belonging to their

definitions upon trial, and thus be equal to their whole definitions. But when we recollect where we are, the mind perceives these thoughts to be illusory, and the colouring is not then conceived to be a quality of such objects as will fulfil their whole definitions. I shall conclude with saying, that as we never can experience the fulfilment of that part of the definition of external objects, viz. their existence after our own ceases; so although it be an inference of high probability, yet it is short of strict demonstration. We can indeed by referring like effects to like causes, and proportional effects to proportional causes, demonstrate thus far; but we never experience this further complete independancy of outward object as an effect. All we can do is to refer compound similar and various effects, to compound similar and various causes; which occasions an inference that such causes are like ourselves, plus or minus the varieties, and we finding ourselves independant of them, are led to conclude

they will in like manner be independant of us.

This statement of the matter immediately touches upon the difficulty there is in the detection of like compound objects being present to us. However, the reasoning on the point is nearly demonstrative, and practically is entirely so—for when we get at objects like ourselves, which must exist as causes of the effects we experience, nothing is perceived capable of making such a difference, as should prevent them from existing independant of us were we no more—yet things are real, if even this last test of independancy remain without proof; for *they* are real which fulfil the definitions for which their names were first formed. The being true to expectations formed of their qualities, is the very criterion of reality; and even upon the supposition of a total independancy being out of contemplation, still all existing things would be in relation to our senses, and to motion; and be independant of our thoughts and

actions. Nor let it be thought that infants, peasants, and brutes, do not reason; all of these are capable of perceiving certain relations, included in the impressions made upon them, and of drawing them as occasion requires into practical results.*

With respect to the nature of God, (in which all men are so much and justly interested) his essential existence, his continued existence is demonstrated, by the abstract argument used in this treatise. Whatever variety and changes of beings there are, all changes must finally be pushed back to that essence who *began not*, and in whom all dependant beings originally resided, and were put forth as out goings of himself in all those varieties of attitudes which his wisdom and benevolence thought fit.

And I shall not shrink from saying, that such thoughts as these, do unintentionally render the mysteries of re-

* M. de Tracy says, "Un enfant apperçoit un rapport cerume il apperçoit un couleur."

ligion easier to the comprehension than otherwise they would appear ; for shall we limit the capacities and attributes of Divinity, in his unknown, unperceived state, by our meagre perceptions ? May he not to every world that hath come forth from him, offer a protection, and an interference, in proportion to, and in relation to its wants ? May not some confined manifestations, of the universal essence, *be sent* to different worlds adapted to their capacity for moral improvement, to the motives which may act upon them, and the uses which result from such a manifestation of his presence, in the way either of action or *passion* ? Again shall all things swarm with life, and the principle which divides animate from inanimate nature be still undiscovered, and yet no emanation from the essential deity, brood over the face of the deep, or breathe into man the breath of life ? or finally, shall God be either limited, or divisible, by senses that cannot detect his presence, although

known by the understanding that he “needs must exist,” and be in all times and places “ready to appear” to his creation, as the continually existing cause for its support, its life, its hope, its confidence, and its joy!

ESSAYS

ILLUSTRATIVE OF

THE DOCTRINES

CONTAINED IN THE PRECEDING ONE,

AND IN

AN ESSAY

ON THE

RELATION OF CAUSE AND EFFECT.

PART II.

ESSAYS CONTAINING INQUIRIES

RELATIVE TO

THE BERKELEIAN THEORY;
THE COMPARISON OF MATHEMATICAL AND PHYSICAL
INDUCTION;
THE UNION OF COLOUR AND EXTENSION;
THE CREDIBILITY OF MIRACLES;
THE NATURE OF A FINAL CAUSE AND OF MIND;
THE REASON OF SINGLE AND ERECT VISION.

ESSAY I.

CONSIDERATION OF THE ERRONEOUS
REASONING CONTAINED IN BISHOP
BERKELEY'S PRINCIPLES OF HUMAN
KNOWLEDGE.

SECTION I.

“WHEN several ideas,” says Bishop Berkeley (section 1st,) “(imprinted on
“the senses) are observed to accom-
“pany each other, they come to be
“marked by one name; and so to be
“reputed as one thing, thus a certain
“colour, taste, smell, figure, and con-
“sistence, are accounted one distinct
“thing, signified by the name of apple;
“other collection of ideas form a stone,
“a tree, a book, &c.” (Section 3rd,
p. 25,) “For what are objects but the
“things we perceive by sense? and

“ what do we perceive but our own
 “ ideas or sensations? for, (section 5th,)
 “ light and colours, heat and cold, ex-
 “ tension and figure, in a word, the
 “ things we see and feel, what are they
 “ but so many sensations, notions, ideas,
 “ impressions on the sense? and is it
 “ possible to separate even in thought
 “ any of these from perception.”

Sec. 9, p. 27. “ Some make a distinc-
 “ tion between primary and secondary
 “ qualities; but extension, figure, and
 “ motion, are *ONLY ideas* existing in the
 “ mind. And an idea can be like nothing
 “ but an idea, for neither these nor their
 “ archetypes, can exist in an unper-
 “ ceiving substance.” (Section 15th.)
 “ It is impossible, therefore, that any
 “ colour or extension at all, or sensible
 “ quality whatever, should exist in an
 “ unthinking subject without the mind,
 “ or indeed, that there should be any
 “ such thing as an outward object.”

Thus far Bishop Berkeley, on *objects*
 being *only ideas*, or sensations of sen-
 sible qualities, and these ideas as com-

prehending the primary as well as secondary qualities. Many, I conceive, will think, from what I have said in the foregoing pages, that there is no material difference between my doctrine, and his. But a careful investigation of both, will show there is a very considerable one. For although, I agree with him, 1st. That nothing can be like a *sensation*, or *idea*, or *perception*, but a *sensation*, *idea*, and *perception*; 2ndly. That the primary qualities, *after* the impressions they make on the senses, are sensations, or ideas, or perceptions; as well as the secondary ones. Yet I do not agree with him, in stating, that *objects* are nothing but what we perceive by sense, or that a complete enumeration is made of *all* the ideas which constitute an apple, a stone, a tree, or a book; in the summing up of their *sensible qualities*. For I have made it clear, I trust, by the foregoing argument, *that an object perceived* by the mind is a compound being, consisting of a certain collection of sensible qua-

lities, “mixed with an *idea* the *result of reasoning*” of such qualities being formed by a “continually existing outward and independant set of as various and appropriate causes;” therefore that there must be “*an outward object,*” existing as a cause to excite the inward feeling. The logical error, therefore, of Bishop Berkeley on this part of the subject, is an *incomplete definition*; for no definition is good which does not take notice of *all* the ideas, under the term; and in every object of sense which the mind perceives, the knowledge of its *genus*, as a general effect arising from a *general* cause independant of mind, *is mixed with the sensations or ideas resulting from its special qualities affecting the same*. The notion of this *genus* is omitted in Dr. Berkeley’s *definition of an OBJECT*, by the limiting words *but and only*.

2. Bishop Berkeley is guilty of an ambiguity, when he speaks “of ideas being *imprinted on the senses,*” “of

our perceiving" (*by sense*) "our own ideas and sensations," for he appears to speak of the "*senses* on which objects are imprinted," as if he intended by them those five organs of sense, viz. the eye, the ear, &c. *vulgarly called the senses*, but which, in truth, have no sense or feeling in themselves as independant of mind; but are mechanical instruments; which as powers modify exterior existences, ere they reach the sentient capacity; the which capacity as a general power or feeling becomes modified thereby; for undoubtedly, the senses as organs cannot perceive what the senses as organs are required to form.* .

When he speaks of "ideas being imprinted on the senses," *the phrase contains* the very doctrine he is controverting.

The *ideas* of colours cannot be imprinted on the *eye*; nor those of sound on the *ear*; nor those of extension on

* Dr. Reid on visible figure, &c. is guilty of a like error.

the *touch* ; for there are no such IDEAS, until *after* the eye, as an instrument, has been affected by *some sorts of outward objects*, fitted to convey to the sentient principle, a sensation of colour, and so of the rest. Therefore the objects *perceived* by the organs of sense cannot be our ideas, and sensations. Indeed, he does not take notice that he uses the notion of *perception* (which is that upon which the whole argument depends) in two different methods, or meanings. For the term perception, when applied to those objects for whose observation the organs of sense are required, and by which certain qualities are determined upon the perceiving mind, is used as the *notice* the mind takes of the presence of certain qualities *in consequence of the conscious use of the organs of sense*, the use and action of which must, therefore, be in relation to *some* objects which are not the mind ; but when applied to the “ ideas and sensations of sensible qualities,” perception is *only* used as the

mental consciousness of those qualities, leaving out the conscious use of the organs of sense, and the ideas of the outward objects which must necessarily have acted on them.

Nor is this reasoning I am using, the mere turning of an expression, for in this sentence “*what are objects but the things we perceive by sense?*” and “*what do we perceive but our ideas and sensations?*” there is an offence against one of the plainest and most useful of logical rules; for the argument if placed in a regular syllogism, will be seen to contain a middle term of two different and particular significations from which, therefore, nothing can be concluded.

Let the question be, “*Are objects, ideas and sensations only?*” and the middle term, “*The things we perceive,*”—be united with the predicate for the major proposition, and then be altered to—“*the things we perceive by sense,*” when joined to the *subject*, for the minor; it will be seen that an incon-

clusive syllogism is thence formed.— For if the major proposition stands, “ Our ideas and sensations, are the only things we *perceive*,” and the minor, “ Objects are the things we perceive by sense,” the conclusion, viz. “ Therefore *objects* are only our ideas and sensations,” does not logically follow, because the middle term would then consist of “ *two different parts, or kinds, of the same universal idea,*” i. e. the idea of perception in general ; “ *and this will never serve to show whether the subject and predicate agree, or disagree.*” * *For in the general conscious perception of sensible qualities, are included the knowledge that the organs of sense are used, as mechanical instruments acted upon by certain causes, and the IDEAS of these causes. And this conscious use of the mechanical action of the five senses in relation to other beings than the mind, is a very different part, or kind of the universal idea of perception, from the mental consciousness of PARTICULAR SENSIBLE QUALITIES only ;*

* Watts's Logic.

which is also another part, or kind of the general notion of perception ; *which general notion includes every species of consciousness whatever.* The consciousness whether the organs of sense be used or not, in perceiving objects, is the great criterion of a sane, or insane state of mind, of its waking or sleeping condition ; the consciousness that the organs of sense are used, makes all the difference between objects of sense, or objects of memory, reason, or imagination. *By the quick and practical use of the senses subsequent to infancy, the associations of ideas, resulting from reason and experience, are so interwoven and so immediate with the consciousness of their use, that they ought always to be considered as forming a component part of the whole ideas which lie under the terms, THE OBJECTS OF SENSE.* The *objects of sense*, therefore, (under the conscious use of the organs of sense,) are known, (according to the reasoning used in the foregoing chapters of this essay,) to be *the continued, exterior, and independant exist-*

ences of external nature, exciting ideas, and determining sensations in the mind of a sentient being ; but not ONLY to be *ideas and sensations*.

In the sentence already commented on, and which contains the sum of Dr. Berkeley's doctrine—the word *object*, as well as the phrase “ *perception by sense*,” is of ambiguous application ;—for in his use of the word *object*, he begs the question ; meaning thereby a collection of sensible qualities, formed by the senses and apprehended by the mind ; whereas the adversary means by that word, a set of qualities exterior to the mind, and to which the organs of sense are in relation as mechanical instruments, and of which they take notice as those permanent existences, which the understanding is aware *must needs continue* when unperceived, ere they are transformed by their action into other beings. Objects before the notice of the senses, are not the same things as after their acquaintance with them. All men mean by objects the things which

exist previously to their mixture with the action of the organs of sense, and which FROM POWERFUL ASSOCIATION, *they conceive to exist under the forms of their sensible qualities*;—therefore by *feigning* the contrary notion there can arise no convincing argument.

To go on, however, with the argument, (by which I would show that objects of sense are not *only* the ideas of their sensible qualities,) I observe that reason discovering these objects to be in their relation to each other, as *various* as the *impressions* they convey; also perceives them to be in *one* respect *like* the ideas they create; i. e. in the same proportions and bearings to each other, *outwardly* as they are inwardly. Therefore among the observations we have of “our ideas and sensations” of sensible qualities, we do perceive *something else* than these mere “*ideas or sensations*,” for we perceive by *reason*, that those things which must needs be present in order as *causes* to affect the sense, may on account of *their variety*,

their *similar distinctness*, and *proportions*, be named, (when considered as existing exterior to the instruments of sense,) by the names they bear when inwardly taken notice of.

Now I consider the observation of this latter circumstance as containing a full answer to all the puzzling contradictions of Bishop Berkeley's theory; for although, in a popular manner, men consider things are *outwardly* the *counterpart* of what they perceive *inwardly*; yet this is not the whole reason of the difference they make amidst things: for the soul does truly in a sense *perceive* outward things, *as* they are when existing outwardly, for after *reason* shews that the qualities of things, in a state of *perception*, cannot *be like* them out of a state of perception, yet being conscious that sensation is only a *simple* act, (a power, a quality,) *it perceives* by the understanding that the *varieties* of things are in relation to each other *outwardly* in the *same proportion* as are the inward sensations. Thus hard and soft, bitter and sweet,

heat and cold, round and square, are therefore *perceived* not ONLY to be sensations, but to be certain unknown qualities of objects independant of the mind in *relation to each other*, and in that state “to continue to exist, ready to appear to the senses when called for.” Popularly, the sensations these excite, are associated with the notions of the outward objects, and all their varieties. But when philosophy breaks up this association, she should not take away *more* than what this natural junction of thought has created; Bishop Berkeley does not merely separate what is mixed, but would destroy the whole compound together. This observation, in my opinion, contains a *demonstration* against the Berkelean theory, and restores nature entirely to her rights again. “Equals taken *from equals* the remainders are equal.” Take *sensation*, simple sensation, the power or capacity of feeling merely, from extension, from colour, from sound, and from taste; from heat and cold; from electricity or attraction; from fire, air, water,

or earth; from the *perception* of life, or the *idea* of death; from motion or rest. Is there nothing left? Every thing is left that has any variety or difference in it. “What are objects” (says Bishop Berkeley) “but the ideas perceived by sense?” They are beings perceived by reason, to be continually, independantly, outwardly existing, of the same proportions as are the inward sensations of which they are the effects. Had Bishop Berkeley allowed of the force of a most finished piece of reasoning he uses in respect to the proof of the existence of *other minds* than our own, in behalf also of objects that are not minds, he had not set before the public, some paradoxes, unhappily considered as *unanswerable*. In (sect. 195), he says, “From
 “ what has been said, it is plain that
 “ we cannot know the existence of other
 “ spirits otherwise than by their opera-
 “ tions, or the ideas by them excited in
 “ us. I perceive several motions,
 “ changes, and combinations of ideas,
 “ that inform me there are certain par-

“ ticular agents *like myself*, which ac-
 “ company them and concur in their
 “ production. Hence the knowledge I
 “ have of *other spirits* is not immediate
 “ as is the knowledge of my ideas, but
 “ depending on the intervention of ideas,
 “ by me referred to agents or spirits
 “ *distinct* from myself, as effects or con-
 “ comitant signs.”

Now my argument (however ill I
 may have executed it) intends the whole
 way to show “ that our knowledge of
 other objects” (of any kind) is not *im-*
mediate as is the knowledge of our ideas,”
 but depends “ on the *intervention* of our
 ideas,” by us referred to “ agents or
 spirits,” (to *unknown proportionate causes*
 distinct from ourselves,) and that the
 several “ *motions, changes, and combina-*
 “ *tions* of ideas, which we perceive, in-
 “ form us that there are certain parti-
 “ cular agents *like ourselves*” (*always* like
 ourselves as continuing to *exist*, and in
 other qualities, *plus* or *minus* ourselves)
 “ which accompany them, and concur
 “ in their production.”

In order, however, to carry the argument a little farther on these matters, let us examine with a greater nicety than we have yet done this proposition;—"figure, extension, and motion are *only* ideas in the perceiving mind,"—and let us select one quality, say *figure*, for this examination, in order to simplify the analysis; then the argument which applies to figure, will also apply to the other qualities.

Let the question be; Is figure an *idea only* in the perceiving mind? Now undoubtedly the sense, inward perception, or notion of figure, (or by whatever word shall be designated the conscious sensation of a living being which it has, under the impression of figure,) can *only* be in a perceiving mind; and nothing else can be like it but such another sensation: but this *sense of figure*, is not what the word figure, only means when applied to an object which affects either the sense of sight or touch. It is then a relative term—a sign of a compound notion, signifying a particular sensation

caused by a particular *cause*, which cause is not a sensation. Moreover, the word *is also understood to be applicable to the proportion which that cause (or “outward continuous object”) bears to the other outward beings surrounding it*; (and this without supposing they are the least like our ideas;) for let us consider a round figure, for instance, apart from our perception of it; the *line* which bounds this solid substance *outwardly*, (whatever *line* and *solid* may be,) and parts it from the surrounding atmosphere, (whatever *parting* or *atmosphere* may be,) must still be a *variety*, or *change*, or *difference*, among these outward things, and this difference among outward unknown things, *not like sensations*, is *outward*, and is always meant in that sense by the word, which signifies, *a certain state of continuous existence*, which is independant of mind. The word and notion are *compound*, and each stands for the *cause and effect united*, and not *only* for the *effect*. Philosophers, therefore, ought to be capable of perceiving that figure, extension, and mo-

tion, &c. are *not only ideas in the mind*, but are capacities, qualities, beings in nature in relation to each other when exterior to mind.

It is owing to our ideas being the counterparts of the *proportions* of those things, which our reason teaches us must be independant of mind, that Dr. Reid talks of an *intuitive* conception and knowledge of the nature of outward extension, &c. Whereas it is by observing the relations of our ideas which are effects, whose causes must be equal to them, that we have a knowledge of that relation which the independant and permanent objects of the universe must needs bear to each other; if *instinct* only guided us, there would be no more proof of the external world than of a dream, where there is an equal instinct in behalf of what is afterwards acknowledged to be non-existent.

But the perceptions of the relations which our ideas and sensations bear to each other, and the results therein deduced, put the proof of an external and

continually existant universe upon the same footing as the existence of the sensations themselves, and form a deduction as demonstrable, and clear, and convincing as any mathematical certainty whatever.

To go on, Bishop Berkeley however allows *that there are causes* for the sensations of sensible qualities ; independant of the perceiving mind. But it is in descanting upon their nature that he is again guilty of as fallacious, and inconclusive, and paradoxical reasoning as that which we have just examined ; for he uses the very argument of his adversary, (which he has been industriously endeavouring to destroy,) as an instrument to prove his own doctrine, and I shall now proceed to shew that he does so.

SECTION II.

(SECTION 25th and 26th.) “ We perceive,” says Bishop Berkeley, “ a continual succession of ideas ; there

“ is therefore *some cause* of these ideas.
 “ This *cause* cannot be any quality or
 “ idea; for an idea” (section 25th)
 “ is an *inert* being, and cannot be the
 “ *cause* of any thing. It must therefore
 “ be a substance,” (section 26th,) “ and
 “ as it has been shown there is no *ma-*
 “ *terial* substance, it remains the cause
 “ of our ideas, is an incorporeal, active
 “ substance or spirit.” (Section 27th.)
 “ A spirit is one simple, undivided,
 “ active being, which hath understand-
 “ ing and will.” (Section 28th.) “ My
 “ own will excites in my mind ideas at
 “ pleasure, and by the same power they
 “ are destroyed. This making and un-
 “ making of ideas, very properly deno-
 “ minates the mind active.” (Section
 29th.) “ But the ideas imprinted on
 “ sense are not the creatures of my
 “ will, there is therefore some other
 “ will or spirit which produces them.”
 (Section 30th.) “ Now there are set
 “ rules, or established methods, where-
 “ by the mind we depend on excites in
 “ us the ideas of sense, and these are

“ called the Laws of Nature.”* (Section 156th.) “ By nature is meant the visible series of effects or sensations imprinted on our mind.” The conclusion of the whole matter is, that there is nothing but two sets of objects, viz. “ spirits ” and “ ideas ; ” “ spirits as causes, and ideas as their effects.” Now it is plain we can know no more of *activity*, *indivisibility*, and *simplicity*, as applied to *substance*, called mind, than of *inertness*, *divisibility*, &c. applied to another sort of substance, called *matter*. These are still only ideas gained in the usual way, rejected when applied to objects of *sense* existing *without the mind*, but made use of by him, when applied to *spirit*, existing *without the mind*. “ Motion ” (Bishop Berkeley distinctly says) “ is *only an idea* existing in the mind.” If so, I ask, what does he know about *activity*, as *absolutely necessary to constitute a CAUSE*, and which

* The remaining sections are taken up in answering objections, and are quite immaterial to the subject of these remarks.

CAUSE, he says, *cannot be an IDEA?* because ideas are “visibly inactive.” Also, what notion can he have of cause at all, if he knows of “*nothing but ideas ;*” and *ideas are not causes*, and what too are the *rules and methods* of the working of a spirit, which as rules and methods and laws of nature, cannot themselves be spirit or substance, yet are not allowed to be material beings? And how can the will at pleasure, call upon an idea, when before it begins to call, it must know what it wishes to call, and so must have consciousness of the idea in question, which as an object associated with another idea, can and does truly act as a cause in order to introduce it. But *I* argue as we can distinguish between the capacity for sensation in general, and that for the exciting causes of extension and other qualities in particular, so we have a right to name *this mind*, and *that* body, and that after all the talk of *materialists*, who say, “matter cannot act on mind,” (“they are discordant *beings ;* so *all* is

matter;”) And the immaterialists who say the same things, (“and that *all* is mind,” for the same reason;) it appears perfectly easy that such causes and capacities, such collections of qualities should intermix, and produce those results, which take place under different forms of sensible objects; and which in my opinion are combined by the junction of the qualities of matter, or unknown powers, or qualities in nature; the senses, or instruments fitted to act along with these; and the *mind*, or *sentient principle* and capacity. Nature in her whole works bears witness such is the case.—Also by keeping strictly in view, that the power of sensation is *one* and *simple*,—and that subtracting it from all the objects with which we are acquainted, the remaining qualities will bear still to be considered as worthy of holding the various names affixed to their appearances upon the sense, and reasoned on as before;—there will be cause and effect, extension and space; time and

eternity ; variety of figure and colour ; heat and cold, merit and demerit ; beauty and deformity, &c. &c.

The proportions of all these beings among themselves, the external independant qualities in nature among themselves, corresponding to our perceptions, must be as *various* as they appear to the mind ; therefore, there is figure, extension, colour, and all qualities whatever. Nor is it necessary in order to support the idea of Deity, and his constant presence and providence, to have recourse to the ridiculous notion of his *activity* as a “ spirit ” upon our senses in order to change our ideas ; for whilst the *perception* of sensible qualities *immediately* informs us of our own *sensations*,* reason by the intervention of the ideas of their different relations, equally discovers to us insentient existences, as well as that of our own, and other minds ; whilst with respect to the being of God, his essential existence, his continued exist-

* See p. 14, “ Also the mind,” &c.

ence, is demonstrated, by the abstract argument used in this treatise. “What-
 “ever variety and changes of being
 “there are, all changes must finally be
 “pushed back to that essence, who *be-*
 “*gan not to be*, and in whom all de-
 “pendant beings originally resided, and
 “were first put forth as out-goings of
 “himself in all those varieties of atti-
 “tudes, wherewith his wisdom and
 “benevolence are able to fit out every
 “variety and gradation of creature.”*

* See p. 189.

ESSAY II.

UPON THE NATURE OF THE FIVE ORGANS OF SENSE, AND THEIR MANNER OF ACTION WITH REGARD TO EXTERNAL PERCEPTION.

I WOULD here more fully consider a subject of great importance, upon which I have but briefly touched in the larger essay, "*on external perception*;" namely, *The nature of the five organs of sense, and the manner in which they are used, with regard to the conveyance of the perception of external objects to the mind.* This subject appears to me but partially analysed by the authors to which I have there alluded. It is naturally complicated; embraces a vast variety of particulars bearing

upon each other;—Each of which in order to be examined aright, must, during the period of its examination, be equally considered as unproved, as well as others which might suffice as proofs, were they not also involved in the uncertainty of the point in question. When this is done, every object whatever of supposed existence, independant of mental consciousness, is found to be upon an equal footing, and must necessarily be put aside, on account of being as yet unacknowledged.

What then remains as given data? Nothing but our sensations, mental consciousnesses, (simple or complex,) arbitrarily named, and their relations; and this seems to leave so frightful a void; the analysis of our knowledge into such materials seems so impossible; and the being capable of arriving at any certain evidence for *real* things (as they are called,) by a synthesis formed of such, seems likewise so impossible, that the soul starts back with a wise alarm for fear of venturing too far, and

beyond the limits whence it may be able to *retread* its steps if such should be the case; yet as I have attempted to question so much, I must in order to be consistent, push my inquiries still further. I must lead on to where this subject points, and endeavour to make that theory, which to my own mind is consistent and luminous, appear so to others.

Now, that our living conscious sensations, that is, those consciousnesses which are sufficiently vivid to form *strong impressions*; and *long enough in duration* to admit of being compared together; with the results of their comparisons as again forming a new class of sensations, (*ideas* of reason,) are the only, the original, and immediate materials of our knowledge, is the chief feature of the philosophy I would profess. And I do consider these materials as sufficient for every useful opinion; for the proof of every existence which others refer to “*instincts*,” “*primary laws of belief*,” “*ultimate facts*,”

“ *immediate knowledge by the senses,*” or other means, the which do truly leave the objects of which they testify wholly without any proof whatever; for, “ *that we are incapable of thinking otherwise than we do,*” can itself be no reason that we think rightly. The same instincts, laws of belief, immediate knowledge by senses, do, in the course of every twenty-four hours, afford the same kinds of proof for the independant existence of objects which men admit to be non-existent without a doubt remaining on the subject; but when our consciousnesses of sensation, and the results arising from the comparison of them are reposed in, as being the only original materials of our knowledge, and as therefore containing the proofs of the existences, with which we are acquainted, then inasmuch as the original sensations are the beings, the very beings themselves; so the knowledge of their existence is in and with themselves, as well as of the existences contained in their relations.

The ideas of reason are thence upon

the same footing as to certainty, as are those of sensation, and are true demonstrations of existences. The reason, therefore, for believing in existence, independant of consciousness, must bear to be examined and substantiated upon this foundation; i. e. as being the result of the comparison of *our* "*ideas of sensation.*" The ideas of reason must be the corollaries included in the impressions of sense, from whatever source they may be supposed to arise; they must be the conclusions of the judgment when the faculties are in a state to exert their power. For *independant* existences are, by the very terms, and supposition of the statement, unconscious; and, therefore, must be known of as a result derived from the comparison and included in the relations of those which are conscious.

In this inquiry all writers I have met with, (especially Bishop Berkeley, who professes idealism,) are to be blamed for an oversight, when they speak of the *senses* in such phrases as these, "*objects imprinted on the senses,*" "the

perception of external objects by the senses ;” &c. without even considering that the whole question is begged by this use of the word *senses* ; an object imprinted on the eye, for instance, must mean, (even in Bishop Berkeley’s sense,) an object rendered conscious by the use of the eye ; but what is the use of the eye itself, other than a conscious sensation, or action, supposed to involve the *knowledge of an object*, EXTERIOR *to*, and INDEPENDANT *of* that mind, to which it serves as an instrument of perception ? For unless the whole subject in question is granted, the consciousness of the use of the organs of sense, can but be considered as *some* “ sensations and ideas,”* which introduce into the mind, OTHER “ *sensations and ideas.*” Yet Berkeley evidently considers the use of the organs of sense, as a circumstance distinguished and different from “ ideas and

* “ Sensations and ideas,” is the phrase by which Berkeley always expresses the conscious perception of any sensible qualities whatever.

sensations ;” because he considers that “ God by set rules and methods, called “ the laws of nature, works upon and “ with *the senses*, in order to create “ ideas of sensation, objects of sense “ every moment.” He thus makes an essential difference between the two powers in nature, without marking out any *criterion* of distinction by which the mind may recognize any such difference between them ; the *senses*, therefore, in his notion of them, are as necessary, to be acted upon “ *by these set rules and workings* of a spirit,” as they are in order to be worked upon by real *extension*, &c. in the language of the anti-idealists. What then, I again ask, are the *senses* so worked upon ? are they *other set rules of the spirit* ? If so, one set of rules acts upon another set of rules, in order, for instance, to give us ideas of vision ; but one set of rules would seem enough to give us such ideas. It appears, then, that the “ senses” in relation to the actions of a spirit, must at any rate be something

extra to the consciousness of their use. They are *something* in Berkeley's sense by which the spirit we depend upon introduces "ideas in our minds," but they are not as yet sensations in a mind, for it is *by* them sensations and ideas are introduced into the mind. The *consciousness* of the use of the eye could not introduce light; it must be the eye properly so called, whatever that organ when unperceived may be: therefore, the organs of sense are at least, even in Berkeley's sense, *some objects—not themselves* "the set rules of a spirit," nor yet "ideas and sensations," but, existences independant of either, which must *needs exist as continuous existences*, unknown and unperceived in their qualities, in order to account for the *creation of sensations and ideas in the mind*. And if so, there may be others like them, and every variety which may be unlike them, save in that one quality of existence.

In Mr. Stewart's and Dr. Reid's *

* There may be some slight shade of difference between Mr. Stewart's and Dr. Reid's sentiments on

sense, the “senses” mean mechanical, extended, figured, solid existences; as means, instruments, and causes, by which we immediately perceive the existence of external objects, and to the use of which there is *instinctively* annexed, the knowledge of the *nature* of their primary qualities, when existing independant of any perception of mind; as well as an “*ultimate law of belief*,” “without any process of reason,” by which there arises the knowledge of their permanent independant existence.

It is evident, the whole question in such a doctrine is again taken as granted. Does the eye, then, tell us what the eye is made of? or, does it acquaint us with what is the nature of touch? Does the ear tell us of its own formation? or, the nostrils prove to us their solidity and extension? This obviously cannot be the case. Let then the organs of sense be set apart as they ought, (if the argument is to be logically conducted,) and the knowledge this head, but if so, it is too indistinctly set forth, to enable me exactly to descry its boundary.

of these as external, independant, and continuous existences be involved in the general question. In this sense, how is their existence known ?

I suppose Dr. Reid and his friends will tell us, that the touch, as a mere sensation, would be capable of “ suggesting” the exteriority and independancy of the other organs of sense : “ That the hand might grasp” the eye “ as a ball, and perceive it at once “ *hard, figured, and extended :*” “ *That “ the feeling is very simple, and hath not “ the least resemblance to any quality of “ body :*” yet, that it “ *suggests to us “ three primary qualities perfectly distinct “ from one another, as well as from the “ sensation which indicates them ;*”* for

* These sentiments Mr. Stewart alludes to in his essays, as being at once original, and profound ; logical and luminous ; giving them his warmest approbation, and supporting them by his sanction ; therefore, it may perhaps be some error, (for aught I know,) in my judgment, which makes me conceive them as unfounded in fact, and contrary to every principle of correct reasoning. See his Essay on the Philosophy of the Human Mind, vol. 2, chap. 1, sec. 3, p. 68, also Essays, note O.

“ *that although the feeling of touch no more*
 “ *resembles extension than it does justice, or*
 “ *courage, yet that every moment it presents*
 “ *extension to the mind ; and that by it we*
 “ *have the notion of “ a quality of body ;”*
 (which, however, is not a NOTION but a
 quality of body.)

But when the *eye* is in the hand, what informs the mind by this touch ; what suggests the *independant continuous* existence of its extension, figure, and hardness, granting these qualities were proved ? (for this is the material part of the question :) For when the organs of sense, both by idealists and anti-idealists, are spoken of, it is taken for granted, that as mechanical instruments they are *continued independant existences* ; and are neither sensations of mind, nor yet the qualities of bodies.

The power of motion, as a sixth organ of sense, (for so it may be regarded,) as the method of overcoming distance, and of becoming acquainted with tangible extension, is equally taken for granted, as existing unperceived, and as an aid to the five organs of sense.

After perceiving these errors in the distinct manner I do, I feel anxious in entering upon a statement which I would fain believe less open to objection. I conceive, however, that the doctrine I have laid down at large in the essay on external perception, must, if understood rightly, be so considered, and I will add thus further to it.

Philosophically, the organs of sense must be considered as *unknown* existences in their unperceived state, yet as yielding their own peculiar and appropriate sensations or ideas to the mind ; their *continued, independant* existence is found as a result, or perceived by the understanding as a relation of its simple sensations ; for the *mind* perceiving, upon each irregular application to some *sorts* of *beings*, or *qualities*, or *ideas*, which it may call the organs of sense if it *please*, that they regularly reply to that application, justly concludes them to exist when unnoticed, in order to be capable of this readiness to reply. Those objects, also,

which do thus reply, yield to the sense of motion from point to point, an idea of resistance and extension in particular; and so are regarded as body; that is, as essences different from the mind, or the powers of sensation in general; but continually existing objects, or qualities, which yield ideas of extension, are not *ideas*, but *continued* existences called bodies.

Thus the organs of sense, are those independant continuous existences, with whose ideas the mind associates the sensible qualities their action excites in the mind; and which are observed to have their share in performing the changes, as well as to detect* the presence of objects, which are themselves, neither the organs of sense, nor yet the mind itself.

The foundation of the whole reasoning concerning the independancy both of the organs of sense, as well as of other objects, arises from the axiom, "*that no idea, or quality, can BEGIN its*

* See p. 233, "But again," &c.; also, p. 102, "It is not sufficient, therefore," &c.

own existence.” For we perceive that the *sensation as* of the use of any organ of sense, *does not alter the mind always* in the same way; therefore, the mind and the organs of sense being the same upon any occasion as on a former one, when no other object than themselves were present, a third object is required to occasion the interruption of its present state, which object is to be seen, or heard, or felt, &c.* But again, when there is the mind, and any other object known, or supposed present,—if the eye be shut; the hand removed, &c. such object will not appear; therefore, to the observance of any particular object, there is not only required the mind, and the object, but also the organs of sense; those parts of the

* In this inquiry it ought to be unnecessary to repeat, although I have done it for the sake of clearness, that no object, or *idea*, can begin its own existence, but must appear as a change of those objects already in being, and as requiring corresponding previous interferences, unions, separations, &c.

human frame, (or ideas, or whatsoever else they may be called.)

The organs of sense, therefore, when analysed are *continued existences, which form the media of admixture between other objects and minds.* It is not the consciousness of their use, however, which renders them *a part of the whole cause necessary to that end*, because that consciousness is but an *effect*, or sensible quality; they must be considered when they act as causes, as unperceived beings, and so must the minds also, as well as the other objects in relation to them; and it is in the coalescence of these three, that conscious, complex, sensible qualities,* must be considered to exist. But to this day the sensible† qualities are considered as fastened upon the objects, which are neither organs of sense, nor minds, and to be their own independant qualities

* See 6th Essay, that sensible qualities cannot be causes.

† The doctrine of Aristotle is the same as this, which I have found since writing the above.

on account of the intimate association *between their respective IDEAS and SENSATIONS.**

I have already, perhaps, intruded upon the patience of the reader too much, by repeating some things already said, in order to throw light upon this intricate part of the subject; I shall only now add, that the great difficulty and mystery in the affair, is, that in dreams, insanities, &c. the organs of sense are thought to be in use; for there is a sensation, as though they must have been in use, on account of a reference made to them, as the only instruments capable of having let their specific objects into the mind's apprehension. The memory and understanding are then *asleep*, and the mind therefore cannot take notice of all the ideas which would otherwise affect it *and their relations*. The objects, therefore, which appear, are considered as those, which are in relation to the senses, and they are thence expected to be capable of

* See p. 142, "Now objects," &c.

those further qualities which are necessary to their definitions. And, in fact, I perceive not how the proposition can be refuted, that although there may be truth in the world, yet the discovery of *an absolute criterion* of an understanding capable of detecting it, does not seem to be the lot of human nature. Thus the sensible quality *termed the use of the senses*, appears to the mind in dreams, whilst yet the mind cannot discover that it is but dreaming; it must therefore awake, and be in a state to find that such senses as these, do not fulfil their definitions, that their organs do not *continue* to exist, and cannot exert any unperceived action, ere it is able to discover the delusion.

The reason why the mind is deluded in dreams, and other fancies, is on account of its being known, first, that similar effects must have similar causes, and secondly, *that these causes are usually found along with other compound objects, which have further effects, other qualities when meeting with other objects; a habit of*

expectation is thus formed which even in a disordered fancy leads the mind to consider *similar sensible qualities*, as a *compound general effect*, from such a *general cause*,* or object, as will fulfil the remainder of its qualities upon trial.

In dreams the *sensible qualities* arising from what is termed the use of the senses, is not corrected, by other *sensible qualities*; nor by the *reasoning* which the mind when awake is always *latently* using, when it draws inferences from certain consistencies, or inconsistencies, amidst its ideas; to the power of such reasoning it is restored upon the moment of awaking, by which it is made aware of the place where it has long been; then the mass of appearances before the fancy, immediately takes its flight and the enchantment is dissolved.

Indeed it may be remarked, *that in waking as well as in sleeping hours, when*

* See essay on causation; Mr. Hume is so far from being correct in supposing that *regular conjunction* GENERATES the idea of causation, that on the contrary, it is only itself looked upon as AN EFFECT of its own regular cause.

memory is gone, we cannot remember that we forget, nor perceive relations which do not present themselves to deficient powers of reasoning; the want of ideas in those who think they have sufficient, will ever yield a ground of scepticism to men of understanding; lest they should lie under the same predicament, without having any criterion by which to detect the difference. It is when ideas of reason are clearly included in those of sensation, that I assert, they are upon the same footing as to certainty. I conclude nothing from the WANT of them.

Bishop Berkeley has been, I think, much misunderstood on account of his conceiving that things were created each time of their appearance; he only meant to say, that the formation of the sensible qualities by the use of the senses, existed in and by their use, and that they could not exist *thus*, (in that manner and fashion,) except in a mind perceiving them, and thus far I perfectly agree with him.

ESSAY III.

THAT THE EXTERNAL CAUSES WHICH
DETERMINE THE VARIOUS PERCEP-
TIONS OF SENSE, ARE NOT THE IM-
MEDIATE ACTIONS OF DEITY.

As our perceptions themselves are allowed on all hands not to be *immediate actions of Deity*, so their causes may be equally observed to require many processes of nature in order to their production; of this we may very well judge by that *comparison of ideas* in which all reasoning consists. For sensation in general being but a simple power, its particular varieties can be no other than measures, tests, or examples of that variety which must necessarily exist in those things which are not in-

cluded in sensation, that is, in those things which are *excluded* from it, and are therefore in qualities exterior to it, but which meeting with the internal sense, alters it accordingly: thus we may very well know that vast preparations go on of unperceived beings, and of such whose *essences* are unknown, in order to accomplish the formation of an universe, or the growth of the harvest; the creation of man, or the flight of a butterfly; the developement of the least, equally with the most magnificent of nature's works, which requires the *progress* arising from successive changes. For it is manifest, that the external causes of our sensations must exist among themselves in the same proportions as do the internal varieties of sensation, their effects; and this notion may be expressed after the same manner in which any usual proportion is stated; thus, *as* is the variety of different simple or compound sensations, *so* is the variety of their causes. Therefore by examining aright the proportions and

relations of our ideas, by perceiving that some afford evidence that they are created by living beings; “beings like “ourselves (plus or minus their varieties,)” and that others afford evidence that they are created by beings devoid of life; still by beings like ourselves, (“plus or minus the varieties,”) we may arrive at the knowledge of external sentiency and insentiency; and thus that *all* which is external cannot be of one kind, i. e. *mind* or *sentiency*; nor yet the conscious actions of a sentient mind. But if it be said that though they are not the conscious actions of mind, yet they are actions which are the effects of a conscious mind, but themselves not conscious; then they are not *immediate* acts of Deity, but *mediate* acts of Deity, whose varieties meeting with the human senses, create our ideas.

And this is the very doctrine for which I contend, and the elucidation of which is not unimportant, now that there exists a disposition among some, to revive a

rigid Berkeleian philosophy ; admitting no existence in the universe, excepting that of the Deity, and the individual who is *reasoning*. I divide therefore with Berkeley, by applying the argument he himself uses in behalf of the proof that there are other minds than his own in the universe, to the proof of existences which may be other than mind.

Thus there becomes a real distinction between the nature of some existences and that of others, as far as their relative variety and proportion goes. And this difference may be known by the nature of the effects in their varieties : the one kind of existence may very properly be termed *matter*, and the other *mind*. And thus the definition of matter becomes *the capacity of exhibiting upon a sentient nature, the sense of solid* EXTENSION in general ; and that of mind, *a capacity fitted to be excited to any sensation in particular*.

Therefore as the capacity for exhibiting extension, appears not itself to

be essentially sentient, and in all cases fitted to be excited to sensation ; so by thus differing in its enumeration of qualities, it cannot be *mind*, or the sentient actions of Deity.

But although the *proportional varieties* of external objects may be known thus far, nevertheless I consider it never can be too much insisted on, (in order to maintain an *exact* philosophy,) that the *positive* nature and essence of unperceived beings *cannot* be known ; feeling, thought, sensation under its varieties, is the only essence of which we have absolute *consciousness*. Other essences we know, must exist by reasoning ; but the reasoning is here the consciousness, not the other essences. We have the knowledge there must necessarily be such beings ; but it is the knowledge of which we are conscious, not the beings themselves. We have proof by the comparison of our ideas, that there are unperceived natures ; but it is the proof whose essence we know, not the nature proved.

We believe in those things, of the existence of which there are unequivocal signs; but the signs are not the existences.

The real essences of matter and mind we know not; we only know our sensations, *as real beings, very essences*: these are the very things themselves. We know of other things which must “needs exist” by our sensations, but cannot conceive the nature of any essence not in our experience.

I trust such ideas will not be thought tending to a dangerous scepticism. So different does their tendency appear to my own mind, that I consider them as leading to the most solid belief and conviction, in the existence of every variety of being which alters the conscious sense, and which reason upholds as exterior to it, and independant of it; whether as a perpetual series of changes flowing from the only origin of all things; or as that mysterious being himself, either concealed behind those *mediate* acts which screen his glory from mortal man, or *manifesting*

himself in many ways, better suited to our comprehension, and better fitted by the qualities contemplated, to be compared to ourselves in their variety ; and to create trust, esteem, and hope, in their decided superiority.

ESSAY IV.

UPON THE PHILOSOPHY OF MR. DUGALD STEWART AND DR. REID, AS IT REGARDS THE UNION OF COLOUR WITH EXTENSION; AND THE PERCEPTION OF THE EXTERNAL PRIMARY QUALITIES OF MATTER.

MR. D. STEWART has the following passage in the first volume of the *Philosophy of the Human Mind*.* “ I
 “ formerly had occasion to mention
 “ several instances of very intimate as-
 “ sociation formed between two ideas,
 “ which have no necessary connexion
 “ with each other; one of the most
 “ remarkable is that which exists in
 “ every person’s mind between the no-
 “ tions of colour and of extension.

* Part 2, ch. 5, p. 1.

“ The former of these words expresses
 “ a *sensation of the mind*, the latter de-
 “ notes a *quality of an external object*.
 “ So that there is, in fact, no more
 “ connexion between the *two notions*
 “ than between those of pain and so-
 “ lidity.”

Now, I consider, this passage as containing, in a few lines, a complete example of the errors in modern metaphysics, as to the nature and manner of *external perception*. There is here said to be, an intimate association between two *notions*, viz. those of *extension* and *colour*; whilst yet the word *extension* is said to express “ the *quality* of an external object,” instead of a *notion*; and as such must be incapable of associating as an “ *idea*,” with the “ *idea* of *colour*,” which is also said to be “ a *sensation of the mind*.” The whole sentence to those who will examine it accurately, must appear to involve a contradiction.

Mr. Stewart, by later publications than this, shows himself the avowed admirer and supporter of Dr. Reid’s

philosophy, which, although he observes, that it may require some improvement in the way of addition, he conceives to be incontrovertible as far as it goes, and as not involving obvious inconsistencies, and contradictions. It is the philosophy of these authors, that the primary qualities of bodies are objects immediately perceived to be *exterior* to the mind, whose essences also may distinctly be *conceived* of, in their external state ; that the *conception* of the *nature* of these essences is *suggested* by means of the *sensations* these qualities excite in the mind, through their action on the senses, but that the *conception* itself is not a sensation. These *exterior* qualities are, therefore, *perceived* NOT to be *sensible qualities*, but to be totally *unlike* them. Along with this perception of the exteriority, and *conception* of the *nature* of external primary qualities, *instinct* affords an aid to the senses ; by which power it is, the mind becomes acquainted with the *fact*, that these *exterior qualities* CONTINUE to exist when

UNPERCEIVED *by the senses, and independent of any of its* CONCEPTIONS.*

Thus, the *perceptions* of extension, figure, solidity, motion, hardness, and softness, &c. are NOT *sensations of mind*; and there is no occasion for any ideas of *reason*, or other means than an arbitrary impulsion by which to apprehend their situation, as external to it; we have also a clear *conception* of their positive *nature*, as they exist when *exterior* to the mind; yet this clear *conception* of *positive natures*, is not an idea in the mind, nor does it “*suggest any thing which, without the grossest abuse of language, can be called a sensation.*”

Visible figure is also supposed by Dr. Reid, to be “*immediately perceived, as the position of parts in relation to the eye, external to it, and distant from it.*”

* This is called the doctrine according to common sense. See Reid's Essay on the intellectual powers; also Reid's Inquiry into the Human Mind, c. 5, sec. 3 to 7, pp. 73 to 88, duod.

Stewart's Essays, Note O.

Thus *visible figure*, i. e. *vision*; i. e. the *conscious* sight of an object, involves “*no sensation of mind*,” but simply there is “the *perception* of parts, *external to the eye* ;” “so that if *no appearance of colour* existed in the mind, the external position of an object might be perceived without its intervention.”*

When such thoughts as these are still held as the doctrines of *common sense*, how shall there be future improvement in any department of philosophy?

To return to Mr. Stewart, I would take his own view of the subject without any needless cavil at a mere expression. “The *sensation* of colour is associated with an *external* quality, which is *not a sensation of mind*.” If so the *sensation* of colour is *there*

* That visible figure is perceived altogether external to the eye involves to my mind the statement of a complete contradiction. It is the result, and sum of our present philosophy, and lays the foundation of many a further error. See Reid’s *Inquiry of the Human Mind*, c. 6, sec. 8. pp. 132 and 133.

where the extension is; which involves the absurdity of sensation *residing without* the mind; and is an opinion, which, (however much modern philosophers may pride themselves upon the discovery of its absurdity) is yet truly included in the whole doctrine of the *immediate perception by sense*, of EXTERIOR PRIMARY *qualities*, of whose *nature there is a clear conception*.

But should it be retorted,* that by this phrase is meant that the *notion* or perception of extension is united to the *notion* or *sensation* of colour; and that the *association of these thoughts* is *IN the mind*, although the *quality of extension* be EXTERNAL to it: to such a vindication I would answer, that then the *notion*, or *perception of extension*, is allowed to be *in* the mind, notwithstanding the many battles Dr. Reid has fought to keep it thence. Coloured extension is at last, therefore, obliged to be admitted as a COMPOUND NOTION

* I think, however, Mr. D. Stewart could hardly use such an argument with fairness.

which exists IN the perceiving mind ;— Upon which result arising, I will not be unfair enough, in my turn again, to retort with the question, which is tauntingly asked of the idealists :—Is this NOTION of extension, a *square*, or a *round* notion ? how broad, or how long is it ? because such a question is *not very consistent from those, who admitting every variety of the appearance of colour, or of other secondary qualities of matter to be a sensation of mind, (not possible to exist unperceived,) never consider it necessary to ask, whether any particular appearance be a scarlet, or green sensation ; a blue, or yellow thought ? If an idea be sweet, or sour ; loud, or soft ? &c.*

Now, a philosophy which should explain the circumstance of colour being still seen as exterior to, and distant from the mind and body, after so much has been done to prove it to be a mere affection of the mind, would go far by its natural reunion with every abstract and practical science, to put the method of our knowledge of an external uni-

verse upon a better footing than it has hitherto appeared.

I have attempted some ideas of this kind, which I fear will hardly be accepted; and I am aware the abstruseness of their nature, involves me in the danger of being thought inconsistent. The notion of perceiving *primary qualities immediately by the organs of sense*, and that they possess exteriority, and of being able to *conceive* them by suggestion from sensation, *such as they positively exist*, is contradicted by the circumstance of EXTENSION, RESISTANCE, SOLIDITY, FIGURE, DISTANCE, MOTION, being perceived as *immediately*, and as *vividly*, as to every *circumstance* the same, in dreams, insanities, and hallucinations, as in a waking and sane state of mind. Individual appearances will be in every point alike; thus all *conscious qualities*, however deemed primary, and conceptions *unlike* sensations, are proved to exist as mental sensations, or perceptions. They are thus all and equally *effects*; changes

upon the principle of sentiency; *various powers of sensation*. It is difficult indeed, to find a phrase at which philosophers will not cavil; but *perceptions* must necessarily be *conscious*, therefore, they are affections of an animated nature. For in whatsoever primary and secondary qualities may differ, yet there must be one quality in which they all agree, namely, as being sentient affections, or consciousnesses. Primary qualities shall be *perceptions* if they please, and secondary ones be only sensations; but, as far as perceptions are *conscious*, they are sentient. The perception, as perception of external qualities, must be conscious, therefore, *perception of extension*, must be a conscious sensation.

I have founded my theory alluded to, upon the observation and analysis of certain facts:—For, first, I perceive there is no difference in a delirium, &c. and sane state of mind, between the DELUSION *and the* REALITY, *as far as all notice of* SENSIBLE QUALITIES *is con-*

cerned. Again it is a notorious fact, according to the laws of light, that were the sun blotted from the heavens, it would still continue to be seen eight minutes after such an event.

Now, according to Mr. Stewart, and Dr. Reid, its figure is *immediately* perceived altogether *external* to mind and body; for whilst its extension consists in an exterior, known, positive quality, suggested to the conception, by a SENSATION OF TOUCH, *unlike* its conception, this *extension* is further associated with the sensation of a brilliant colour, the whole forming a *visible* figure; a relation of parts to the eye far distant from it.

What becomes of such a theory? of so much argument; of so much ridicule of others; of so much *common sense*, in support of a doctrine entirely inconsistent with other discoveries much better supported?

I have endeavoured to inquire into the mystery of the knowledge of external nature, and I own it is wonderful; I am as much persuaded as any, that the

objects in relation to the senses, form an independant and external universe; that motion is requisite in order to overcome distance, &c. Yet the argument is demonstrative that sensible qualities, both primary and secondary, are *conscious exhibited effects; sensations* formed by the *excitement of unknown causes*, on the sentient powers; that motion in this respect is also a sensation; distance likewise; every consciousness, every perception, every notice, is mental.

What, then, is nature? What, then, is the universe? What are our friends and children? I answer, *a whole set of corresponding, but unknown, unperceived qualities*, which have a variety in *that proportion and difference among each other*, which their *perceived varieties possess*, and that the knowledge of such a fact, comes by *reason*, or arises from the perceptions of the *relations of our ideas*.

It is, therefore, because in some cases reason is wanting in its powers of *observation*, and *comparison*; because

many results and consequences arising thence, many ideas put in position with others are annihilated in dreams, hallucinations, and insanities ; that there is a difference of the most material kind, with respect to our capacity of forming a right judgment as to the causes concerned in the exhibition of sensible qualities. *In delusions the mind cannot take notice that they are not caused as usual, because the sense of place is lost ; and the notice of the means used in the formation of objects by previous causes, becomes annihilated ; which formation it is that renders objects truly similar to others, and not their mere appearances.* In a sane and waking state of the mind, we can *reason on causes*, and can perceive by an act of the understanding immediately coalescing with the senses, all the consistencies, or inconsistencies of the *relations of the ideas of the sensible qualities*. In such a state, we therefore refer sensible qualities to objects permanently, and externally existing ; be-

cause we take notice, they have been *formed in a manner*, and appear under circumstances, which yield the supposition of being similar to those which *will return upon* irregular applications of the organs of *sense*, and so “*must needs continue to exist.*” In delusion there is *no perception of the understanding*; in sane thoughts there is. In dreams the understanding sleeps, the fancy only is awake:—Yet, however vivacious the images of fancy may be, if the understanding in any particular case should chance to be awake, they are considered by the subject of them as the qualities of a disordered mind; not bodies external to it.

I have heard of a conscious delirium, in which the sensible qualities of extension, resistance, sound, colour, the voice of human beings, and animals, dancing, music, and painting, all, appear as *real*, and *vivacious* as though they had been external and distant, which yet the patient knew did not exist except in his own heated fancy,

so long as he retained the sense of the *place* where he lay, and had presence of mind to *reason on that fact*; but when he lost the *recollection of place*, he could not put it in relation with the rest of the ideas or images in his mind; and so referred the sensible qualities to such usual causes as produced such images; i. e. he considered that their causes existed independant of fancy. Thus coloured extension is a *compound sensation*; the sense of motion is another; tangibility and resistance are others; but their unperceived, CONTINUALLY *existing causes*, are independant of *sensation*, unperceived, and unknown; and whilst their positive nature is unknown, yet their relative value, among themselves, is known to be *equal* to the relative variety of the “ideas and sensations;” i. e. the effects they determine on the mind. But lest in this short exposition I should only by giving a hasty sketch, mislead the reader, I refer to the larger essay for these ideas in their fuller detail. Suffice it to keep

to the point in question, and it follows, that *conscious, coloured extension*, is as a *picture* in the mind, and must be associated there with ideas of position, and distance, and direction, in relation to *motion*. The understanding knows these sensible perceptions of motion and distance, have corresponding exterior qualities which can appear to other minds, and which would exist were no consciousness present. Now it is unperceived motion which is in relation to unperceived distance, and unperceived contact; (whatever such qualities may be when unperceived;) therefore, when the soul perceives the *picture* in which the coloured atmosphere appears, as well as the objects beyond it; it places them all in proportion to its perception of the motion requisite to attain contact with them; referring all the perceived qualities, which are *effects*, equally to all the unperceived qualities which are their *causes*; and which are in equal mutual relations. *Unperceived motion truly goes forth to unperceived*

extension, &c. The perceived qualities are as a *landscape*, sent from an unseen country by which we may know it; as *algebraic signs*, by which we can compute and know the proportions of their qualities; as a *language*, which must be translated, before it can explain the actions of nature. The mind, in this landscape, is taken as an unextended centre, ready to go forth amidst the surrounding scenery; perceives itself amidst the algebraic equations, the simple quantity which never varies; and when it philosophises converts the ideas of its own operations into those analytical forms of expression, to which it is obliged to have recourse when it would adequately comprehend the interactions of the powers of nature.

Visible figure is thus truly nothing more than a conscious line of demarcation between two colours, and so must itself be colour; figure must ever comprehend visible extension; and visible extension does not take place without colour: nor can I conceive of

perceiving it externally and immediately without it; for extension without colour is complete darkness.*

Now, when the soul goes forth to *that*, which the understanding may be supposed correct in considering a permanently existing object, does it go forth to colour and extension? There is no philosopher of the present day who would not answer, that it does *not* go forth to colour, but that it most certainly goes forth to extension. Now, I say, that in this respect colour and extension must stand or fall together; every argument of Dr. Reid's philosophy applies equally to *both*, for considering them *external*; whilst also every argument in considering *secondary qualities as mere affections of mind, caused by permanent unlike causes*, applies equally to both; therefore, I again ask, Does the soul go forth to colour and extension? I answer, That it does *not* go forth either to *perceived* colour,

* See Reid's Inquiry, c. 6, sec. 8.

or to *perceived* extension, but that it does equally go forth to UNPERCEIVED colour, and to UNPERCEIVED extension; for that it attains unto, and forms an immediate junction with those *unperceived permanent causes*, or objects which determine perceived colour and extension upon the mind; and which unperceived objects, although considered themselves as coloured and extended, are *only* so considered, because incapable of being conceived of, save under the forms of those sensations which are always created by them, and which bear equal varieties of proportions among themselves; and that however every change of step may alter any colour, figure, and perceived extension, yet those permanent exterior existences are considered by the understanding, as they truly are, unvaried in themselves. Thus to endeavour to catch at unperceived relations is a very difficult task for the mind; whilst fit expressions for them are still more so.

The advantages resulting from this

doctrine are, that it purports to be an analysis of facts, which, when *synthetically* put together, will again accord with nature.

Secondly, that it admits of examining nature without scepticism; for the *landscape*, the *calculation*, the *language*, are supposed correct in every part, either in respect to the *representation* of the objects, the *computation* of the proportional quantities, or the expression of the *facts*.

Thirdly, a view is here taken which may enable physiologists and physicians, moralists and divines, parents and instructors, better to observe, and more wisely to act than they do, with respect to the health, the opinions, and the practices of those under their care. Sensations are *effects*; the same external causes would yield the same internal sensation to each mind, if the varieties were not in the individuals. Sentient capacities seem also the result of an uniform, permanent power in nature. The varieties by every induction

we are capable of making, seem to depend upon variety of organization, either in its arrangement, or its action. The former, whether in men or animals, has its most permanent characters stamped by the Deity. The latter is as multifarious as food, medicine, and climate; the circulation of the blood, the passions, the habits of education, and the notions of individuals, can render it. They are wrong, therefore, who, ignorantly taking no notice of these things, expect the *human will*, to be in all circumstances equal to self-command. Men make excuse for their actions in dreams and insanity, saying, the essences of things are then different; but never consider, that every degree and variety of their state of mind depends upon analogous laws and causes, which wisdom acting in time might alter with advantage, but which afterwards may lie beyond any human power to ameliorate.

I say, that in this doctrine the synthesis is equal to the analysis, because if a sentient being were placed in the midst of

various insentient qualities, capable of exciting changes in the sentient being, the sentient being would consciously perceive the changes, would soon reflect on them, would soon perceive the relation of cause and effect, i. e. objects, or *some* changes of mind, *without which others* would not happen, and so would refer its own changes to causes; self, would therefore appear as a general capacity for any sensation, united to a *body*, i. e. a *sphere of certain limited consciousnesses*; and *objects independant of self*, would appear to be the *causes* of specific sensations in particular; *without which self in general* might continue to exist.

Thus all things would *justly* be considered as *out* of the mind which were not *in any given state of sensation*; but the objects which existed in relation to the senses would also yield a proof, (by *their regular return on the irregular application of the organs of sense*,) that they permanently continued to exist *under certain defined and regular forms*. It is these continuous existences which are called *the objects of nature*. In all

this the mind, as I think, from very early infancy, perceives the *true relations of things*, with almost as much ease as it perceives the *sensible qualities of things*. Along with this there would arise an intimate *association* of the sensible qualities with the ideas of their permanent *causes*; an *action of the mind*, which leads to the illusory belief of a corresponding external union. A notion not easily, and which ought not too hastily, to be broken up.

The only reason why pain and pleasure do not seem to exist in the objects capable of yielding them, but to reside within ourselves, is because in those cases there is not a *permanent* association.

Beauty and deformity are (except by some philosophers) considered to exist external to the mind; yet are no more than sensations of satisfaction or disgust, which some unknown, external causes create, and which are transferred upon those causes, and seem at a distance, on the *surface of bodies*, just in the manner in which Mr. Stewart speaks of colour, as seen united to extension at a dis-

tance, and which I conceive admits of a similar explanation to that which I have endeavoured to give of that phenomenon. In like manner love, as long as it lasts, considers its rapture to be caused by the merit of its object, but when distaste arrives it is found to reside in a *selfish sensation*; and by a new delusion, the object of its former passion, is now thought equally by its demerit to deserve a contrary emotion.

But the whole of the matter is, I repeat, a mystery; an “*unknown language*” is *not* that in which to think, with much ease and satisfaction. I take the subject in its full amount to be “*one of those secret things which belong to the Lord our God.*” The deep consideration of it is, however, well fitted to afford the conclusion, that apparently like objects may in every sensible quality be similar, and yet they may essentially differ in their remote causes; i. e. in those aggregates or objects which contain their proper effectual causes, and therefore ought to be examined upon their own grounds. There may be no perfect

analogy between any complex objects in nature; therefore, to understand them aright there ought to be a complete analysis of every part of them. Whilst it must nevertheless be owned, that an exact examination of objects made by experiment, (or nice observation,) is a true source of the demonstration of *similar qualities for the future in like circumstances*. In both these respects modern philosophers err; considering *partial analysis* as affording ground for *analogical conclusions*, which without unwarrantable scepticism, or weak hesitation, are not open to objection:* whilst at the same time, *no principle is supposed sufficient* to explain the doctrine, that where there is a complete similitude known, or supposed, in the *formation* of two individuals, *there is any necessity* there should be a complete likeness in their qualities or effects. An association of ideas is thus erected into a fit means for the know-

* As in the conclusion *that because some religions are false, ALL are so*—some miracles ill supported, and alleged to have taken place upon frivolous reasons; all are on the same foundation.

ledge of existence ; whilst the deductions of reason are considered as inadequate to their discovery.

I have attempted to reverse this order, and to show that *an association of ideas* will never prove any other existence than that of *an association of ideas*, but that *reason* has power to deduce the knowledge of an *universe*, existing independantly both of ideas and their associations.

The consideration of this subject also may show modern philosophers two principal errors in their doctrine of causation ; the adoption of which confuses the otherwise luminous pages of Mr. Stewart ; for it proves, first, that *cause* is NOT an *arbitrary antecedency* of *sensible qualities* in the mind, but an *efficient concomitancy* in external nature ; as also, that the greater uncertainty of physical when compared with mathematical science, arises from the superior difficulty of *detecting* the presence of *exactly* similar objects or causes, not of demonstrating their like *effects* if found : but this latter remark deserves further consideration.

ESSAY V.

THAT MATHEMATICAL DEMONSTRATION, AND PHYSICAL INDUCTION, ARE FOUNDED UPON SIMILAR PRINCIPLES OF EVIDENCE.

SINCE writing the essay on causation, I find that my views with respect to its nature, accord less with general notions than I was then aware of. I became acquainted, indeed, during its progress in the press, with some remarkable passages in the writings of Mr. Dugald Stewart, perused many years before, although then obliterated from my memory, but was unwilling to oppose a living author of such celebrity, although my notions were not altered by his observations: the first passage to which I allude, is the following:—*

“ From these observations it seems
 “ to follow that our expectation of the
 “ continuance of the laws of nature,

* Mr. Stewart's first essay, p. 138.

“ is *not* the result of *the association of*
“ *ideas*,* nor of any other principle
“ generated by experience alone; and
“ Mr. Hume has shown with demon-
“ strative evidence, that it cannot be
“ resolved into any process of reason-
“ ing, *à priori*; till, therefore, some
“ more satisfactory analysis of it shall
“ appear than has yet been proposed,
“ we are unavoidably led to state it
“ as an original law of human belief.”

There is a note annexed to this passage, containing a quotation from the *Encyclopædia Britannica*, upon the article *Experimental Philosophy*, which renders it still more evident, that my notions venture to interfere with almost universal opinions, as to the nature and manner of causation.

It is as follows: “ Experimental phi-
“ losophy seems at first sight in direct
“ opposition to the procedure of nature
“ in forming general laws. These are
“ found by induction from multitudes
“ of individual facts, and must be

* Alluding to some previous observations on Mr. Hume's notions.

“ affirmed to no greater extent than the
 “ induction on which they are founded.
 “ Yet it is a matter of fact, a physical
 “ law of human thought, that one sim-
 “ ple, clear, and *unequivocal experiment*,
 “ *gives us the most complete* confidence
 “ in the truth of a general conclusion
 “ from it to every similar case.”

“ Whence this anomaly? It is not
 “ an anomaly, or contradiction of the
 “ general maxim of philosophical in-
 “ vestigation; but the most refined ap-
 “ plication of it. *There is no law more*
 “ *general than this; that nature is con-*
 “ *stant in all her operations.* The ju-
 “ dicious and simple form of one ex-
 “ periment, ensures us (we imagine) in
 “ the complete knowledge of all the
 “ circumstances of the event. Upon
 “ this supposition, and this alone, we
 “ consider the experiment as the faith-
 “ ful representation of every possible
 “ case of the conjunction.”*

The passages which in this sentence appear to me exceptionable, are, “ There

* The confusion of mind arising from considering *cause* as essentially an antecedency, instead of a

“ is no *law* more general than this, that
 “ nature is constant in all her opera-
 “ tions ;” and “ that it is a *physical*
 “ *law of thought* to believe that the
 “ results of any experiment will hold
 “ universally.”

Both of these phrases are of ambiguous import ; for nature is so far from being constant in her operations, that single cases of exception occur to otherwise invariable courses of regularly antecedent and subsequent objects : thus we not only can “ *imagine*,” but we experience a change in the course of nature, as far as all outward appearance and modes of detection can go. On the other hand, her *real* course, in the operation of *similar cause*, must be

concomitancy, and of making no distinction between its *nature and operation*, and our ability to detect its *presence*, is transfused into all modern writers on Cause. *The value, however, of the abstract doctrine of efficiency in cause is of great moment ; for it enables us to refer like effects to like PROXIMATE causes, (whatever variety may creep in amidst exterior aggregates), as also to depend usually on the regularity of nature, as itself an effect resulting from an equal cause.*

necessary and universal; one *unequivocal* experiment (if such can be made) becomes therefore an example of all others of a like kind, and thence forms the datum for an universal premiss, in which all similar particulars are involved.

To believe such, does not require a “*physical law of thought*,” (the very terms of which phrase imply, that the belief of the mind, although imperious, may yet leave its object without *proof* for its truth,) but is founded in a demonstrative species of evidence, namely, in the mental perception, “*that it is a contradiction, qualities should begin of themselves;*” “*that changes are there-*” “*fore changes on the things that are;*” “*that similar interferences will make similar changes;*” “*therefore, that when-*” “*ever things are under similar inter-*” “*ference, they lie under a similar change;*” “*so that thus, an exact experiment is in-*” “*dependant of TIME;*” and, therefore, *when repeated, must be a similar object repeated, and not a different one, or one, which is possible to be affected by that time, whether future, or past; whether*

present, or *distant* ; which enters not into its composition.

A yet more obvious disagreement, arising in like manner from the different view I take of causation, is to be found in the two following passages of Mr. Stewart,* in which it affords me a satisfaction to perceive that my ideas on this subject coincide with those of La Place :—

“ The slightest acquaintance with
“ mathematics is sufficient to produce
“ the most complete conviction, that
“ whatever is *universally* true in that
“ science, must be true of *necessity* ;
“ and, therefore, that a universal and
“ a necessary truth are in the language
“ of mathematicians, synonymous expressions. If this view of the matter
“ be just, the evidence afforded by mathematical induction must be allowed
“ to differ radically from that of physical ; the latter resolving ultimately
“ into our *instinctive* expectation of the
“ laws of nature ; and consequently,

* See Elements of the Philosophy of the Human Mind, vol. 2, chap. 4. sec. 4. pp. 455, &c.

“ never amounting to that *demonstrative*
 “ certainty which excludes the possi-
 “ bility of *anomalous exceptions*.”

“ I have been led into this train of
 “ thinking, by a remark which La
 “ Place appears to me to have stated
 “ in terms much too unqualified : ‘ *Que*
 “ ‘ *la marche de Newton dans sa dé-*
 “ ‘ *couverte de la gravitation universelle*
 “ ‘ *a été exactement la même que dans*
 “ ‘ *celle de la formule du binôme.*’

“ When it is recollected, that in the
 “ one case, Newton’s conclusion re-
 “ lated to a *contingent*, and in the
 “ other, to a *necessary* truth, it seems
 “ difficult to conceive how the logical
 “ procedure, which conducted him to
 “ both, should have been *exactly* the
 “ same. In one of his queries, he has
 “ (in perfect conformity to the principles
 “ of Bacon’s logic) admitted the pos-
 “ sibility that ‘ *God may vary the laws of*
 “ ‘ *nature, and make worlds of several*
 “ ‘ *sorts in several parts of the universe.*’

“ ‘ *At least,*’ he adds, ‘ *I see nothing*
 “ ‘ *of contradiction in all this.*’ Would
 “ Newton have expressed himself with

“ equal scepticism concerning the uni-
“ versality of his binomial theorem, or
“ admitted the possibility of a single
“ exception to it, in the indefinite pro-
“ gress of actual involution ?”

“ In short, did there exist the slightest
“ shade of difference between the de-
“ gree of his assent to this *inductive*
“ *result*, and that extorted from him
“ by a demonstration of Euclid ? Al-
“ though, therefore, the mathematician,
“ as well as the natural philosopher,
“ may without any blameable latitude
“ of expression, be said to reason by
“ *induction*, when he draws an infer-
“ ence from the known to the unknown,
“ yet it seems indisputable, that, in all
“ such cases he rests his conclusions
“ on grounds essentially distinct from
“ those which form the basis of expe-
“ rimental science.”

The passages of the “ Essay on Cause and Effect,” which I would select in opposition to those of Mr. Stewart, are those which presently follow. They are intended to show, first, *that the science of mathematics is truly but one branch of*

physics : for that all the conclusions its method of induction demonstrates, depend for their truth upon the implied proposition, “ That like cause must have like effect ; ” a proposition which being the only foundation for the truths of physical science, and which gives validity to the result of any experiment whatever, ranks mathematics as a *species* under the same *genus* ; where the same proposition is the basis, there is truly but one science, however subdivided afterwards.

Secondly, That, *when objects are formed the same upon one occasion as another, their qualities, properties, and effects, will be similar.* It is this proposition on which mathematical demonstration, and physical induction equally, and only, rest for their truth. There is no difference ; objects are what their formations render them, whether in the shape of mathematical diagrams, or other aggregates in nature. Thus they are intended to show, that the laws of causation form the *base* on which mathematical certainty is built ; and that

the reason why some other branches of science are less secure in their conclusions, is merely because of the difficulty there is in *tracing the original FORMATIONS of the objects*,* without inpugning in the smallest degree, the universality and necessity of the axiom, that if cause in any instance be like, the effect must also be like.

Thirdly, They are furthermore intended to point out the fact, that as we know nothing of objects but the *enumeration of qualities*, so the reasoning which concerns the qualities contained in physical objects, must fundamentally be of the same kind, as that concerning the quality termed quantity, whether it be expressed by abstract numbers, or by mathematical diagrams.†

* Or in finding a criterion whereby to *detect* an unobserved “secret power” creeping in amidst the most unequivocal determination of similar “sensible qualities.”

† This I believe is the old Pythagorean doctrine, and which I am sorry Mr. Stewart considers but “*a dream*.” Pythagoras used to say, “Leave but ONE quality out of the definition of a pear, and the object is not a pear.”

1. “ All *mathematical* demonstration is
 “ built upon the notion, that where
 “ quantities, or diagrams resemble each
 “ other, the relations which are true
 “ with respect to one of each kind,
 “ will be true with respect to all others
 “ of a like kind; only *because there is*
 “ *nothing to make a difference among*
 “ *them*. So, if in all *past time* such
 “ ‘*secret powers*’ could be shown ne-
 “ cessarily connected with such *sensible*
 “ *qualities*; yet, in future it could not
 “ thence be proved to continue so, *un-*
 “ *less supported by the axioms, that like*
 “ *causes must exhibit like effects, for*
 “ *that differences cannot arise of them-*
 “ *selves.*”

2. “ To represent the relation of
 “ cause and effect, as, A *followed* by B
 “ is a *false* view of the matter; cause
 “ and effect might be represented
 “ rather, as $A \times B = C$, therefore C
 “ is *included* in the *mixture* of the ob-
 “ jects called *cause*. If C arise once
 “ from the junction of any two bodies,
 “ C must, upon every like conjunction,

“ be the result; because there is no
“ alteration in the proportion of the
“ quantities to make a difference; C is
“ really *included* in the mixture of A
“ and B, although to our senses we are
“ forced to note down (as it were) the
“ sum arising from their union *after the*
“ *observance of their coalescence.*”

3. “ In like manner the result of all
“ arithmetical combinations are included
“ in their statements. Yet we are
“ obliged to take notice of them sepa-
“ rately and subsequently, owing to
“ the imperfection of our senses in not
“ observing them with sufficient quick-
“ ness, and *time* being requisite to
“ bring them out to full view, and ap-
“ parent in some distinct shape. In-
“ deed, my whole notion of the rela-
“ tion of cause and effect is aptly ima-
“ gined by the nature of the necessary
“ results, included in the juxta position
“ of quantities. But, as long as *cause*
“ shall be considered only as an *antece-*
“ *dent*, the future can never be proved to
“ be included in the past, which yet is

“ truly the case. For when it comes
 “ to be observed, that cause means, and
 “ really is, the creation of new qua-
 “ lities (arising from new conjunctions
 “ in matter or mind) then it is per-
 “ ceived that the future is *involved* in
 “ the past; for when existing objects
 “ are the same, they must put on simi-
 “ lar qualities, otherwise *contrary qua-*
 “ *lities* or *differences* would arise of
 “ themselves, and *begin* their own exist-
 “ ences, which is impossible, and con-
 “ veys a contradiction in terms.* All
 “ that experience has to do is to show
 “ us, by what passes within ourselves,
 “ that there is a contradiction in the
 “ supposition of qualities BEGINNING
 “ *their own existences*, and a contra-
 “ diction is never admitted in the re-
 “ lation of any ideas that present them-
 “ selves.”

“ No mathematical reasoning can
 “ ever be driven further back than by
 “ showing that the *contrary* of an as-

* See the “ Essay on Cause and Effect,” pp
 141 143.

“serted proposition is a contradiction
“in terms. Fire and wood must, in-
“deed, be antecedent to combustion,
“but it is in the *union* of fire and wood,
“there exists *immediately* combustion as
“a new event in nature; also in this
“union there exists the similar cause
“allowed by the data; whilst combus-
“tion is termed the effect of the union
“of fire and wood, but however
“termed an *effect*, is in fact, a new but
“similar object as heretofore; a simi-
“lar mass of qualities in kind, which
“cannot, therefore, be a *different* mass
“of qualities in kind. *Equals added to*
“*equals upon any two occasions, the whole*
“*must be equal: Add equal qualities to*
“*equal qualities, the sum of the qualities*
“*must be equal upon every repetition of the*
“*junction; and the sum must be the*
“*same result taken twice over, not two*
“*different, or possibly altered sums.* It
“may be seen, therefore, upon *ma-*
“*thematical principles*, that a *difference*
“in the result of *equal unions*, can no
“more arise out of the *mixtures of any*

“ other quantities of objects, than from the junctions of those of numbers.”

Thus it may be seen, that in the study of mathematical science, the scholar is supposed to know the general axioms, *“ that qualities cannot BEGIN their own existences, and that the FORMATION of things being SUPPOSED equal, the properties are nothing else but those results, included in their formation, and, therefore, cannot at the same time both be SAME and DIFFERENT; AND THEREFORE, THE DOCTRINE OF CAUSATION IS UNDERSTOOD BY THE SCHOLAR AS THE BASE ON WHICH THE TRUTH OF EVERY THEOREM IS SURELY BUILT.* In this point of view, the demonstration, by means of reasoning on a diagram, is but the *“ one simple and judicious experiment,”* which proves the relations of every other formed after a similar fashion in every different time and place. Could these maxims of causation be altered; could qualities begin of themselves; could (therefore) like cause produce other than like

effect; all the axioms, diagrams, and demonstrations might stand as they do in the books of Euclid, without any avail as to their application to other diagrams of a similar kind and their properties; and for this plain reason, because, although the objects were formed similar to others, their qualities might differ *of themselves*. We might have the radii of circles, for instance, *forming themselves* unequally, although it were granted their boundary line was made a true circle by its usual mode of formation. Thus the doctrine of *necessary connection* is the result of perceiving that two or more individual objects, or quantities, which are like each other, are to all intents and purposes with respect to any relations which may arise respecting them, *identically the same*, and may be always considered as the *same individual objects or quantities* repeated as many times: instead of as many *various* although *similar* objects. It is such a perception as this, in which consists the essential power of abstrac-

tion: an abstraction which Bacon, Newton, Berkeley, all must have allowed, or there could have been no science; and did virtually, and truly allow, notwithstanding some cavils on that head.

The relations of the simple impressions which influence the minds of children, or peasants, nay, even of brutes, enable them to perceive, that *like* things are equal to the *same things repeated*, and that they have no relation to *time*. The past, therefore, governs the *future*, because no *interval of time* can prevent the same thing from being the same. Inferior understandings, indeed, and perhaps all men, consider things to be *like*, or the same kind of object, upon too partial an observation of their qualities or methods of formation; still they expect like causes to have like effects, or like objects to have similar qualities in future, when they do consider them as *like*, only because no interval of TIME can make any difference in respect to them; *and*

there is no other difference supposed or observed.

In the mathematics, diagrams are formed by ourselves, and we may therefore be always *sure* of our future and universal conclusions ; because we frame an *hypothesis*, and examine by one experiment, (i. e. one experience,) the relations which arise ; and the same data being given to all future ages, there is nothing supposed which can make any difference amidst these relations ; for all particular instances are included in the first experience made. The notion of *time* is left out of consideration, for it is observed to have nothing to do with the circumstance of one example being capable of proving the relations of all that are like it in every time and place ; as each may be considered to be identically the same.

This is the reasoning, therefore, or intimate perception, which men and animals have with respect to the course of nature ; and I cannot avoid considering Sir Isaac Newton's theory as

something puerile and unphilosophical, if it is to be understood in the sense Mr. Stewart gives to it.

God no doubt may vary the laws of nature, &c. that is, create, arrange, alter the capacities of objects, by means adapted to those ends. But to understand God aright, he cannot work a contradiction; he cannot occasion the same objects without any alteration amidst them supposed to produce dissimilar effects.

It is, therefore, no more an invasion of the attributes of Deity, to assert that he cannot alter an effect arising from an equal physical cause, than that he cannot render a triangle, at the same time that it remains a triangle, to be without the properties of a triangle. The same kind of object is the same kind of object, and its effects are but qualities the result of its formation, which being *the same* cannot be *different*; and *that*, whether the quality resulting from its formation be a *colour* or a *proportion*.

Mathematical science, therefore, and

those physical actions, which are termed laws of nature, *equally depend* upon the one only law,* “*Like cause must exhibit like effect;*” and this axiom depends on the principle, that “*No quality can begin its own existence.*” For when the inquiry concerning causation is pushed back as far as it may, it will readily be perceived, *first*, that *if any particular quality were supposed to begin of itself*, the following contradiction would arise, viz. that the beginning of existence, which is a quality of being, could belong to a being not yet in existence;† *secondly*, that in this respect all qualities

* Mr. Stewart considers the word *law* to be only a metaphorical expression, E. P. H. Mind, vol. 2, p. 220.

I can only give it a rational meaning, by converting it into quality, property, or relation, in which senses, when general, it forms a general efficient cause, and when we *detect* by an exact experiment a similarity of qualities, we cannot but expect similar effects, because we must expect same things will be same, independantly of time and place. It may be called a *physical law of thought* thus to believe, but I must believe as much of any data in physics, and cannot believe more in mathematics.

† See essay on the relation of cause and effect, p. 34, “Let the object, &c.”

are upon the same footing, and that no variety of accident can make any difference in the universality of that truth.

The faculty of abstraction, is truly the origin of all science. By abstraction, is meant the consideration of any quality apart from others with which it may be usually united, in order to notice what inferences may be drawn from its nature.

Taking that quality apart, therefore, viz. *the commencement of existence*, we perceive that every imaginable being is on the same footing with respect to it, namely, that it is a contradiction to suppose it the quality of a being not yet in existence:—" *That existences cannot BEGIN of themselves*," is thus an *universal* perception, and which ought to govern every deduction of philosophy.

Nor can I agree with Mr. Stewart, that children and brutes do not readily *abstract*; for, I consider, that an intuitive perception, or ready observation, (whichever it may be termed) that the intervals of time, or the multiplication of the individuals, prevent not objects

if they be of the same kind known, or supposed, from being *like others of a similar kind*, (with respect to their FUTURE *untried qualities*,) to be a perception which *belongs universally to animate beings*. Objects, I grant, are considered too readily as similar; for nature is so regular as to the union of similar secret powers, with similar sensible qualities, that she is almost imagined incapable of being otherwise, until found so; but however irregular she may occasionally be found, she never inspires the notion of being at a *contradiction* with herself.

Mr. Stewart's notions with respect to the general nature of causation, setting aside the particular view he took of it, as being dissimilar to mathematical induction, (as well as those of Mr. Hume, Dr. Reid, and others,) are expressed more concisely and less ambiguously than in any other passage in these following words.

“ From experience we learn that
“ there are many events which are con-
“ stantly conjoined so that the one in-
“ variably follows the others; but it is

“ possible, for any thing we know to
 “ the contrary, that this connection
 “ though a constant one, may not be a
 “ necessary one. It is possible, for any
 “ thing we know to the contrary, that
 “ there may be no necessary con-
 “ nections, and we may rest assured
 “ that if there are such we shall never
 “ be able to discern them.”*

It is against such opinions that the
 “ Essay on Cause and Effect” was im-
 mediately directed; it is intended there-
 by to prove that the sort of *experience*
 called *experiment*, will show, that there
 exists *efficient* cause between the objects
 of nature, because it shows that there
 are *objects without which others will not*
exist, and *with which* they will exist;
 that the same kind of experience, being
 mingled with an abstract and demon-
 strative reasoning, enables us to know
 that the *manner of efficient cause*, is not
 by arbitrary antecedency and subse-
 quency of event; but *by mutual and*
simultaneous affections and interactions of

* Elements of the Philosophy of the Human
 Mind, vol. 1, chap. 2, sec. 2.

particles or qualities : whilst a similar mode of *reasoning* on experiment, also leads us with equally demonstrative evidence to the conclusion, that there must exist “ an universal *necessity* of connection ” between any *given* cause and its effect.

In short, causation is necessary not arbitrary ; and though the nature of any *particular* effect requires to be *ascertained by experience*, yet it is *reason* must show its *necessary* connection with its *cause*, as opposed to its *arbitrary* or accidental connection with it ; its *immediate inherence* in its *cause*, as opposed to its mere *subsequency* to it ; and the knowledge of its *invariability of connection for the future*, as opposed to the mere *experience of its conjunction in past time*. Thus although *experience* is required to show, “ that blue and yellow mixed in their particles, will form the colour termed green : yet *that experience* must be reasoned on before it can show, *that by, in, and with* the mixtures of particles, there exists *immediately* green as a new quality in na-

ture;" or such a set of altered particles as shall determine green when meeting with the eye and mind. The aid of *reason* is also equally needful, yet sufficient to show, that the connection between the mixture of such particles, is necessary and invariable. In like manner, one experience shows that ten taken ten times over, yields one hundred; but it is reason which proves that this result coalesces in and with its cause, and *that* in every step of its progress: and that if it once coalesces it must necessarily and invariably do so always.*

* "*Things are what their enumeration of qualities make them;*" in the abstract sciences, we can limit these ourselves, and therefore can predicate the properties of any given subject in them UNIVER-
SALLY, but physical objects of experiment cannot be DETECTED with equal certainty. This is the whole difference; for in any case where we cannot show the reason of any regular appearance in the sciences respecting quantity, a strictly demonstrative proposition cannot be enunciated concerning it, and an UNIVERSAL INDUCTION of a constant fact could not thence result.

ESSAY VI.

THAT SENSIBLE QUALITIES CANNOT
BE CAUSES.

BISHOP BERKELEY has incontestably proved this proposition, and Mr. Hume has made it a main ground of his doctrine on causation. But these philosophers either did not perceive, or did not choose to allow the whole inferences from the doctrine ; for Berkeley, perceiving that “the ideas and sensations of sensible qualities” could not be the external acting causes of nature, that they could not stand out and be independant of the mind again, after being once formed there, in order to mix with or affect any other object in nature ; and yet, knowing that men

would still consider extension, that is, matter as an object having operative cause in nature, and taking notice himself, that such *combined sensible qualities* as are called *objects* did truly *invariably forerun other combined sets of sensible qualities, considered as their effects*; was forced to explain such regular antecedents and subsequents as ordained by God in that arbitrary fashion, for the wise and good purpose of affording us a set rule and method, by which to guide our conduct.

Mr. Hume adopts this idea, and thence deduces his whole doctrine; showing, that combined masses of sensible qualities, called objects, are only the forerunners of other combined masses of sensible qualities, and *not* their *producers*; and hence he infers, that *there is no PRODUCTIVE PRINCIPLE*, that there is *only antecedency and subsequence of events of an arbitrary kind*; and the mind is, therefore, free to consider a *change in the course of nature* as possible.

These notions are also adopted by Mr. Stewart, Dr. Reid, and others; but their fallacy may be discovered by considering that extension, motion, figure, colour, taste, &c. cannot be carried out of the mind to interact with other extension, motion, figure, colour, taste, &c. Certain sensible qualities must *necessarily*, no doubt, forerun certain other sets of sensible qualities. Some objects determined to the senses, will *invariably be antecedent* to others; but such sequences are only *successive* effects, from one common, exterior, unknown cause in nature, existing unperceived by the senses, and meeting successively with various organs of sense, adapted respectively to the perception of qualities; fire will always burn, and bread nourish; but, what do we mean by *fire*, and *bread*? The *sensible* qualities of these will neither burn nor nourish. This, at the first reading, may appear a strange opinion; yet the consideration of *complex* notions, as though they were *simple*, is at the

foundation of the difference of the ideas between philosophers and the vulgar on this head ; the vulgar, however, appear to be nearer the truth than the philosophers ; these latter, considering objects as *only* sensible qualities, will not allow them to be more than antecedents ; whilst the vulgar conjoining them with the ideas of the continuous exterior causes in nature, and considering that the amassed sensible qualities are those very continued existences, formed after a certain fashion exterior to their senses, do consider them in *that state* acting in, and with, and meeting as necessary, operating, and productive principles, with other objects, *which they alter*.

In a science of analysis undertaken in order to correct our opinions, and to improve philosophy for practical purposes, it is requisite to separate these conjoined circumstances, and show, that it is merely the unknown powers of nature, the exterior qualities which are correspondent to the sensible qualities,

which can ever interact with other exterior qualities, in order to *any alteration* in nature. It is on this point, where Berkeley being puzzled by his own doctrine, runs into a gross contradiction with himself.

As I find I have neglected to notice this extraordinary paragraph in its proper place, I shall not scruple to notice it here.*

“ But say you, it sounds very harsh
“ to say, we eat and drink *ideas*, and
“ are clothed with *ideas*; I acknowledge
“ that it does so; the word *idea* not
“ being used in common discourse, for
“ the several *combinations of sensible*
“ *qualities* which are called things. But
“ this doth not concern the truth of the
“ proposition, which, in other words,
“ is no more than to say, We are *fed*
“ and *clothed* by those things which
“ we perceive immediately by our
“ senses.”

“ The hardness, or softness, the colour, taste, warmth, figure, and such

* Sec. 38, Principles of Human Knowledge.

“ like qualities, which combined toge-
“ ther, constitute the several sorts of
“ victuals and apparel, have been shown
“ to *exist only* in the mind that per-
“ ceives them ; and this is all that is
“ meant by calling them *ideas*. If,
“ therefore, you agree with me, that
“ we *eat* and *drink*, and are *clad* with
“ the immediate *objects of sense*, which
“ cannot exist unperceived, or without
“ the mind, I shall readily grant, it is
“ more proper and conformable to cus-
“ tom, that they should be called *things*,
“ rather than *ideas*.”

But who is there of the smallest capacity for analytical philosophy, who could agree with him, that we eat, drink, and are clad, with *those* sensible qualities which can only exist *in* the mind ? Do they *come out thence* again, to be tacked on our bodies, or poured down our throats ? Do we eat the sensible colour white, and swallow the consistency which appears to the touch of the hand ? Does truly any sensation of the colour, figure, and extension

of white drapery, which exists in one man's mind, cover the *lifeless insentient* body of another? This is surely a doctrine which has justly provoked the ridicule of mankind.

But Berkeley here pushed himself to a notable dilemma, for he was either obliged to admit the very doctrine he combated, namely, that *ideas* exist, exterior to mind and body, and *in that state* perform the various operations of nature; or, secondly, that *parts* of the mind, that is, the ideas of the mind; that is, mental things performed them; in other words, *all things* being sensible qualites, "ideas in the mind;" some ideas, clothe or feed other ideas; i. e. some parts of the mind clothe other parts of the mind; some parts of the mind swallow other parts of the mind; but all these propositions mean no more than that the actions of some parts of the mind interact with other parts of the mind. A notion so confused that nothing can be made of it, and moreover, contrary to what he

elsewhere asserts, namely, “that the mind is simple and indivisible”—“that *ideas* are inert beings, having no power or activity, and cannot be causes.”

There was but one way left in which, with any consistency, he could get out of the difficulty, namely, by saying, we eat, and drank, and were clothed with God, the only being external to ideas, which he admits;—a strange and monstrous thought! I cannot reflect that this sentence is in his book without pain; whoever shall study it, as it deserves, for the sake of unravelling the paradox, may, peradventure, find the clue to a better theory, and may come to perceive, that in nature there must necessarily be exterior qualities corresponding to, and as various as those ideas with which the mind is impressed; and to which exterior qualities, sensation is not necessary. God is not found by regarding him, as an active spirit to raise ideas in us, at our board, at our toilet table, by the side of our hearths. To imagine that he is swallowed in

gluttony, or drunk for satisfaction of thirst or intemperance, is not the happiest way to demonstrate his being. Neither do our own *minds*, or any parts or “ideas *in* our minds,” or the “ideas *in* other men’s minds,” perform these offices for us.

By denying *abstractions*, Berkeley denied analysis—by denying analysis, he truly kept up the *associations* of the vulgar, who *conjoin* the sensible qualities exterior causes create, with those causes themselves ;—the very error he wrote to combat.

Now it is the *formation* of the particles, (whatever particles may be,) which renders exterior objects such as they are, and of any certain definite constitution ; and this formation we can trace in, and by the means of sensible qualities, as *signs* of the things that are hid. It is the exterior unknown particles of fire, it is a certain principle disengaged and elicited by certain defined means, which rendering by its *appearance* certain perceptions to the

mind, will, when in connection with the live flesh, disperse its particles with violent pain; or meeting with the unknown powers, whose sensible qualities, when formed, are termed *wood*, disperse the particles of that substance without including in the action the idea of pain.

In like manner, “ *It is not whiteness* “ *and consistency which nourish ; it is that* “ *which is sown, reaped, kneaded, and* “ *baked, which seen or unseen is fitted* “ *to nourish.*”* The appearance of fire, it is true, will antecede the burning of the hand, if seen before it is touched; but its appearance, and its power of disceptibility, are but successive and conjoined effects; and in the latter instance, if bread be seen and touched before it is eaten, the colour and consistency will precede its nourishment; but they are but conjoined and successive effects. Such action of cause and effect must be the same throughout all nature.

* See the “ *Essay on Cause and Effect,*” p. 121.

Thus, I consider it to be the want of separating our *perceptions* from their causes, which has given occasion to the false notion, viz. that of the *successive effects perceived*, the *antecedent* are causes and the *subsequent* are effects.

A, *after* A is formed, and determined upon the senses, when it is *followed* by B,* cannot be B's *cause* in any sense whatever ; but if A and B have been determined to the senses by any external object in nature, A will be the effect of that external object acting on one sense, and B of the same object acting on another sense ; and so long as this object acts on these senses shall A be followed by B, and the appearance of one will ever guide rational minds to expect the appearance of the other,† without expectation being so great and mysterious an act of the mind upon such occasions, as Mr. Hume supposes.

* See Dr. Brown's Essay on Hume's doctrine.

† Mr Hume says, " I ask for information," &c. See sec. 4, " Sceptical doubts," &c.

I find several men of science agree with me in thinking that this view of the matter may be considered as of practical importance. It bears immediately upon every part of physiology, and very materially upon the treatment of mental and bodily disorders, upon the nature of chemical actions, &c. as it opens a different view of the nature of the action which goes on between matter, (as it is termed,) and mind.

The ancients, in order to explain the mystery of this phenomenon, *invented* the notion of sensible species; but the modern phrases, of perceiving things, or knowing them by the ideas of them, imply no more than that we know certain definite varieties of mind, must be occasioned by equal varieties in external nature. Most men, however, are not able to conceive otherwise than that those changes of mind, called primary qualities, exist by themselves *externally*. Now the moderns have found by ob-

servation and experiment, that by the means of every organ of sense, there is truly an interaction between the corporeal part of the senses, and the external objects of nature, whence it is matter of surprise to me, how it can be still maintained as a point of the highest perfection in philosophy, to be able to explain the nature of external perception.

Now, I dare venture to say, however bold it may appear, that if the doctrine I have proposed upon causation be ever received, it will help to throw light upon this subject, hitherto supposed to lie beyond the reach of human discovery.

From a practical knowledge of cause and effect, we measure the heavens, and foretel their revolutions ;—if a scientific knowledge of its principle be obtained, we may perhaps be enabled to understand and imitate nature, better than we have hitherto done.

In the modern metaphysics “ things

that go together are defined and *esteemed* to be causes and effects," and, at the same time, are considered as NOT *necessarily connected*,* which is a contradiction to the understanding. But when a rigorous analysis of those complex notions which are formed and associated by nature takes place, proximate cause and effect will be perceived to be synchronous, and to be nothing more than a change of qualities from the *interferences* which take place amidst the qualities of different objects.† There seems to me little difficulty in apprehending different parts of the human frame, the external extremities of the organs of sense to interact with the particles of external nature and become changed thereby; which frame being sentient must consciously notice these changes, and which changes can neither be *like* external

* See D. Stewart, E. P. H. Mind, vol. 2, p. 222, &c. Lawrence's Lectures, pp. 79, 81.

† This I have spoken of at large in the "Essay on Cause and Effect."

nature, nor the parts of the human frame—nor like the *principle* of sensation, soul, mind, spirit, or by whatever name may be designated the capacity for sensation in general, and consciousness.

Now, indeed, the nature of *body* and *soul* is supposed to be so well known, that the body is considered to act “BEFORE *the soul* and UPON *it*,” and vice versa, “*the soul* BEFORE *the body*, and also UPON *it*,” and contradictory inexplicable propositions are framed, concerning *essentially* different natures, mutually affecting each other in some manner beyond our scrutiny; for though some action must take place in some manner, yet philosophers are very apt to reject every proposed manner as equally nugatory and absurd; so that virtually no *manner* of action whatever is supposed possible. But let it be considered, that the qualities of body and mind are equally unknown, save that mind is a capacity or cause for sensation in general, when

that capacity shall meet with some other object to draw it forth; (for in sound sleep there seems no inherent *sentientcy*, though there be animation;*) and body, a capacity fitted to determine the *particular* feelings, or perceptions, of extension, colour, smell, taste, &c. upon the capacity for sensation in general;—then there appears no more contradiction to me, that they should thus act in, and with each other, than that any one event or object in nature should take place according to the condition of its essence.

For there must always be a natural necessity in the interchange of qualities according to their original formation; so that the contradiction would be to imagine them otherwise than they are, when *once* experience informs us of their appearances: therefore, muscular action, nervous influence, and in short, all actions of the human frame; all the actions of nature, are to be explained

* See Locke.

after one and the same method, namely, by conceiving cause and effect as synchronous in each step of the *series* of actions* which take place, from the first junction or mutual affection of the external senses, with the particles of external bodies, to the last sensation of animated consciousness.

Nor is this idea a mere arbitrary hypothesis; the knowledge of causation is got by a strict analysis, as well as the knowledge of the dissimilitude there must necessarily be, between any mental sensations, and any external qualities whatever; by which discoveries the synthesis is afterwards formed, which shows that a successive series of unions,

* To prevent the trouble of the reader in looking for the argument in the first essay for the proof of the simultaneous action of cause and effect, let him reflect, That every object would remain as it existed at any given moment unless it were interfered with; and an interference cannot be either *before* or *after* itself; but must be in and with the same moment of the change occasioned by it.

and mutual affections of qualities,* *will be equal to the formation of sensation and muscular action.*

* It is not meant that qualities must always unite, but that they mutually affect each other; for whatever may be the nature of their interaction, the argument equally holds good. No arbitrary *law* can create a mutual interference of qualities. Indeed, I have in vain endeavoured to find what philosophers exactly mean by the word *law*; the only rational signification is that mode of being, or action, or relation of qualities, which as Mr. Locke says, “renders an essence that which it is and not another.” But it appears to me, as though they mean it to signify an arbitrary rule which matter would observe without there being a necessity for it in any physical cause. This is impossible.

ESSAY VII.*

THAT CHILDREN CAN PERCEIVE THE
RELATION OF CAUSE AND EFFECT,
ON ACCOUNT OF THEIR BEING CA-
PABLE OF A LATENT COMPARISON
OF IDEAS.

FIRST principles are the perceptions of the corollaries, inclusions, or necessary relations of our simple impressions;

* I am aware that many ideas are repeated here which have been mentioned before. I can only plead the following as an apology for the tautologies which occur; namely, that the substance of these minor essays were addressed to several friends who considered some objections overlooked in the larger essays, and who permitted the insertion of the answers they approved of, and which they considered useful—a repetition therefore of some ideas was hardly to be avoided, even by casting them in a new form.

and infants who have not a capacity fitted to generate such perceptions, are born idiots.

Idiotcy appears to be little else, than an incapacity for further perception than what resides in the immediate impressions created by the use of the five organs of sense, and the power of motion.

Now the necessary connection of cause and effect, resolves itself into the identical proposition, that “same things are same;” and children perceive the relation of ideas which determines that conception upon the mind, and depend upon it, in all their understandings; for children are too simple to perceive any difference between *effects* and *qualities*; and although I must allow that they do not, cannot argue formally on the subject; yet, I am fully persuaded, their understandings take notice of, (i. e. their latent powers of observation enable them to perceive,) certain simple relations included in those ideas of sensation, which are determined to their

minds by the organs of sense.* And this they very soon do, as readily as they distinguish by which organ it is that any new impression of sense is conveyed. It is not therefore necessary to have recourse to any *instinct* or principle of nature, which we know nothing of, in order to explain the source of those ideas which govern their expectations.

To the question which inquires, “Whence it is, the child supposes a candle will burn his finger upon a second trial, as upon a previous occasion?”† I answer, that the child considers, upon the second *appearance of a candle*, that the *candle* is a *candle*. He knows nothing about “secret powers,” “methods of formation,” &c. but owing to the sensible qualities being precisely alike, he considers the object presented to him to be a similar

* M. Destutt de Tracy says, “Un enfant apperçoit un rapport, comme il apperçoit une couleur.”

† See Hume’s Essays, vol. 2. sec. 4. p. 40.

one to that, which he formerly observed of the same appearance ; he therefore *expects* it will prove itself the same in all its qualities. The burning of his finger he considers to be as much a *part* of the same *whole*, as the light which shines before him. There is thus a secret reference made with more or less distinctness to those exterior causes of its figure, motion, and brilliancy, which are associated with these qualities—their effects ; thereby forming one whole : and as these exterior causes, were* on a former occasion capable of burning the flesh upon the application of touch, so they must again be considered as capable of that further quality, or effect, which must necessarily belong to them.

No child or ignorant person supposes that it is the motion, figure, brilliancy, or colour of fire, (when separated from the outward permanent

* To dispel this association was the object of Berkeley. Its intimate indissoluble nature formed the foundation on which Hume reared his doctrine of causation.

causes of these qualities,) which efficiently governs the burning of the flesh ; for that these antecedent qualities *after* being determined upon the mind, *are the only causes of any subsequent burning*, is a *discovery* which they leave to philosophers to make ; but they conceive that *some* object, which *is not in themselves*, and which affects their eyes with figure, light, &c. will also affect their touch with the painful sense of burning. They conceive that an exterior brilliant object is what they see ; and that they see it because it is brilliant and *like* what they see ; they also think the *same* object is a *burning* object, and will therefore burn them. There is thus a false association made no doubt in conceiving the archetypes of sensible qualities to be the permanent causes of the sensible qualities, the effects ;*—but still their expectations depend upon the notion, that when a *part* of the *whole effects* belong-

* It is this association which Mr. Stewart, Dr. Reid, and indeed, almost all men, still make concerning the primary qualities.

ing to one similar exterior cause or object takes place, that the remainder will do so, if nothing arise to prevent it.

Thus it is really the case, that children possess a truer philosophy than that contained in the modern theories, concerning cause, viz. "*that invariable antecedency of sensible qualities is the definition of cause ;*" for they consider the *successive* sensible qualities which arise from the application of our different senses to the same exterior object, to be merely *successive effects*, on account of that object meeting successively with different senses.

But to prove that the child, as well as the peasant, (and even the philosopher when withdrawn from his books,) considers the successive effects imprinted on the senses, as truly but concomitant effects arising from one common object, meeting with various human senses ; it may be observed, that if any one were to shut his eyes for a moment, being aware at the same time, that a candle which he had imme-

diately seen placed before him, was neither removed nor extinguished; he would expect upon re-opening them to see its light, &c. again. Why? for when his eyes are shut the whole qualities of the candle become but as so many future effects; and thence such an expectation lies open to Mr. Hume's query; namely, "Why he expects in any case similar sensible qualities to be *followed* by similar sensible qualities?" for in this case, the darkness upon the shutting of the eyes is the similar sensible quality which may be supposed to have taken place upon a former occasion? I answer to this query, that the expectation of seeing the candle upon opening the eyes, when it is known, not to have been either removed or extinguished, is because, *Like causes (or objects) being supposed and GRANTED as PRESENT; like effects (or qualities) are known to be only capable of existing.*

The child, &c. upon such an occasion would consider there was a similar object present, and which he would im-

mediately perceive could not be a *similar* object, and yet a *different* one; and which nevertheless would be the case, could it do *other* than yield those *future* effects, of its light, brilliancy, motion, and colour.

Expectation of future sensible qualities, is thus founded upon the notion of a similar object being in existence, when it is perceived to be similar, as far as concerns each impression made upon each organ of sense; for although some unperceived cause might alter the exterior object as a whole, yet this is not much taken into the account, for it is perceived, that *if an object were really the same, it would necessarily appear the same*;* whilst also many circumstances secretly influence the judgment of even very young children on this head,—i. e. as to whether appearances are entirely to be depended upon;

* Similarity of appearance proves the presence of like proximate cause; *other things* therefore *being equal*, it proves the presence of a really similar object.

but however this may be, children's expectations are founded upon their conceiving a similar *exterior cause or object* to be placed before them as heretofore, and knowing and perceiving as well as adults do, "*that equals must be added to equals in order to render the whole equal,*" they suppose when *parts* of certain *wholes* are present, that the *remainders* will also recur upon similar occasions; otherwise there would arise a *difference*, without any reason they could suppose for such an occurrence: and children never *imagine* that changes of qualities can arise without a reason for them; or that qualities can *begin* of themselves without a producing principle; or that there can be an *uncaused* change in the course of nature. These ideas appear to them to involve an impossibility; and indeed appear so to all, for I much doubt, although Mr. Hume said, "We could at least *imagine* "a change in the course of nature," (without a cause for it) whether he ever was able to stretch his *fancy* so far.

I grant that children, as well as others, too frequently consider objects as similar, upon insufficient data; for when things *appear* like, and the circumstances in which they are placed seem also to be similar, the imagination does not easily suggest a possible variety; for which, however, there may be some unperceived reason. Nevertheless, when any thing occurs different to that which was expected, such a change is supposed to be owing to some sufficient cause or reason, and the objects which yield such a difference in their effects, are considered as different objects. But the contradictory notion is never held by infants, who have not the misfortune to be born idiots, that objects can be *similar objects*, and nevertheless their *exhibitions be different*.

Thus no interval of *time*, can have any relation to any supposed difference, and the expectations of the *future* are thus *involved as identical* with the knowledge of the *present*. *Time enters not*

into the ideas of the axiom—that equals added to equals, the whole must be equal.

“ Add equal qualities to equal qualities
“ (of whatever nature they may be) the
“ sum of the qualites must be equal
“ upon every repetition of the junction,
“ and the sum must be equal to the
“ *same* results taken twice over, and
“ cannot possibly be two different or
“ altered sums.”* Objects are but the same groups of qualities meeting together, and are therefore, to be considered as the same aggregates repeated over again. Thus children, peasants, and even brutes, perceive, that similar objects being supposed to meet, mix, or in any way affect each other, *no interval of time* which may elapse between the repetition of such mixtures, could prevent their being truly, the same identical objects in nature.

* See “ Essay on the Relation of Cause and Effect,” pp. 54, 55, &c.

ESSAY VIII.

THAT HUMAN TESTIMONY IS OF SUFFICIENT FORCE TO ESTABLISH THE CREDIBILITY OF MIRACLES.

MR. HUME says,* “ I flatter myself I
“ have discovered an argument, which,
“ if just, will with the wise and learned
“ be an everlasting check to all kinds
“ of superstition and delusion; for so
“ long as the world endures will the
“ accounts of miracles be found in all
“ history, sacred and profane.” Now
this argument which Mr. Hume flatters
himself he has discovered, is contained
in the opinion he has formed on the
nature and reason of our belief in caus-
ation.

* See Hume’s Essay on Miracles, 1st paragraph.

In his sections on the subject of the necessary connection of cause and effect, he has endeavoured to prove that *custom* is the only ground of our belief in *cause* as a “productive principle;” or of the necessary connection between effects and their causes.

The manner he applies this notion to miracles is as follows: “The reason “why we place any credit in witnesses “and historians is *not* derived from “any *connection* which we perceive (*à* “*priori*) between *testimony* and *reality*, “but because we are *accustomed* to find “conformity between them.”—“But “when the fact attested is such a one “as has seldom fallen under our observation, there is a contest of two opposite experiences, of which the one “destroys the other as far as it goes, “and the superior can only operate “on the mind by the force which remains.”

The answer I would make to this statement, is in like manner a result from that view of causation which I

have already placed before the public, and which, I trust, may in some degree have helped to weaken the force of Mr. Hume's sophistry on this matter.

I have there shewn, that although, *à priori*, we know not what particular effect may arise as the results of any *given cause*; yet that it is a general proposition capable of demonstration, "*that every effect must have a cause*," and therefore that *whatever* may be the effect which takes place in such case, the connection between it and its cause, is a *necessary* connection, and it must *necessarily*, (in like circumstances,) invariably, and universally inhere in its cause.

Now it is a natural consequence resulting from the experience we have of the *value of truth amidst the transactions of life*, that *mankind will speak the truth in all cases*, when it appears useful and accords with their interest to do so; as well as that in all other cases where the contrary consequences appear, men will be strongly tempted to falsehood;

being only prevented from using it by observing that a superior value is contained in observing a general rule prescribing truth indifferently, whether for or against their interest. It thence follows as an axiom, that we place *dependance* on the veracity of men, in all cases where we cannot distinctly perceive any motive to falsehood; and in like manner that we proportion our jealousy of the truth of their assertions, according as we may suppose them influenced by any circumstance of self-interest. This being the case when they relate "*marvellous events*," we must inquire if there be any motive to self-interest likely to tempt them in any particular given case to falsify; to invent as fables what they detail as facts; remembering always that nature is so far from keeping up any constant analogy in her works, that the very aversion to believe in excepted cases to those of experience, arises from that puerile adherence to a customary association of thought, which made, "the

Indian Prince" a child rather than a philosopher, "who reasoned *justly*" (according to Mr. Hume's argument) when he *refused* to "believe the first relation concerning frost."

There is, no doubt, a necessary connection between *similar* qualities in union, but not unless there be similar qualities *present* in order to unite; there can be no necessary connection if circumstances be *dissimilar*. All laws of nature are comprehended in one universal law, that similar qualities being in union, there will arise similar results; a miracle, therefore, is ill defined by Mr. Hume, when he would express it as "a *violation* of the laws of nature," because there is always understood to be a power in some superior influence in nature, in the presiding energy of an essential God, acting as an additional *cause*, equal to the alleged variety of effects.

This observation enables me further to comment on the next important sentiment of Mr. Hume's on this head;

and which, indeed, contains the sum of his doctrine upon it.

“ Let us suppose that the fact affirmed instead of being only marvellous, is really miraculous ;” (“ for a miracle is a violation of the laws of nature ;”) “ then it follows, that as a firm and unalterable experience has established the laws of nature, the proof against a miracle from the nature of the fact is as entire, as any argument from experience can possibly be imagined.”

Now let us examine this statement with nicety, and with the greatest care observe to what this famous doctrine amounts, which had sufficient attraction in it to draw the opinion of many from the belief of christianity.

First, This statement contains a false assertion ; an assertion contradicted by “ *the slightest philosophy.*” Our experience never established, nor can ever be the measure of the laws of nature ; if by such laws he meant the original

inherent qualities of the “secret powers” and capacities of bodies and minds; the mysterious influences of distinct masses of things, antecedent to their operation upon our senses. Our experience neither created nor arranged them, such as they are when external to us; and, therefore, never can be the measure of what *alteration* might take place under certain altered circumstances exterior to the senses. Nor can our *past* experience ever acquaint us, what latent influences, what new unseen events, what “secret powers” might be drawn from the mysterious storehouse of unperceived nature to alter our experience in future.

There may be no perfect analogy in nature, unless it be that there arise exceptions to hitherto universal experience in all classes of things, with which we are acquainted.

The tale of the Indian Prince, who refused to believe a natural occurrence which passed the limits of his own experience, may be told of our-

selves ;—we deem some limited observation we make, the measure of an universal fact ;—we draw general conclusions from particular premises ; until extended knowledge acquaints us with exceptions, and sometimes with single and most important exceptions to otherwise universal facts. It therefore betrays a want of profundity in reflection, as well as of acquaintance with the sacred writings, to define a miracle otherwise than as an exception to the *apparent* course of nature,—than as a marvellous, because an extraordinary occurrence.

Let the reader mark here, how Mr. Hume can shift his argument to serve his purpose.

We have but just read in his preceding pages, “ That we might suppose nature to change her course “ without a contradiction ;”—“ That it “ is acknowledged on all hands, there “ is no connection between the sensible “ qualities of things, and those secret “ powers on which the effects truly

“ depend ; ” — “ That we know not those
“ secret powers nature has in store ; ”
“ and that our mere experience of a
“ few sensible qualities cannot acquaint
“ us with those unperceived laws which
“ truly govern the effect in every case ; ”
“ — That nature being supposed hitherto
“ ever so regular, does not prove that
“ for the future she may continue ; ”
“ — That henceforth snow may have the
“ taste of salt, and feeling of fire ;
“ rose trees may blow in December
“ frosts, and a pebble may put out the
“ sun.”

All this he advanced without any distinct notions of that operation and manner of efficient cause, which might enable him to distinguish what was true from what was false in this heterogeneous mass of contradictory propositions, brought forward in order to support the conclusion “ *that custom is cause.* ” Then considering that conclusion as well established, he suddenly turns the tables in the essay on miracles, arguing that as *custom alone is*

cause, it alone can be the reason of our belief in testimony, and of our supposing “there is any necessary connection between the custom of believing in testimony, and the reality of the events testified;” therefore he would further infer, “*that the course of nature which can thus be imagined to change without a contradiction, those sensible qualities*” which “have NO connection with the secret powers which determine effects,” is nevertheless to be the measure of future expectation; expectation which cannot be altered in its experience, without such a “*violation of the laws of nature*” as infers a contradiction!

In the reasoning I have employed, in the essay on causation, I have endeavoured to show, that there is *but ONE law* which can experience no change whatever; namely, that similar qualities in union necessarily include similar results; therefore the *apparent* course of nature of which the senses alone can take cognizance, may, with-

out a contradiction change ; and therefore, every single exception to nature's apparent course, is a "*marvellous event*," upon the truth of which we may admit and examine evidence, inasmuch as such event, and such testimony, do *not involve a contradiction*.

The definition, therefore, of a miracle is "*an exception to nature's apparent course*."*

Whether the testimony to prove an event alleged, be credible or not ; and if it be credible, in what manner the event *proves a doctrine*, are two questions beside the main point of inquiry, which is, '*Whether an interruption to nature's apparent course can take place?*' which confusion of three questions involved in one, is the reason that an unsatisfactory answer is generally made. This view of the subject

* The word miracle, in its derivation, signifies only a wonderful thing ; that is, something at which we wonder, because contrary to our usual experience, or in other words, an interruption to that we conceive the course of nature.

did not occur to Mr. Hume, if we may judge from his incomplete analysis of it.

Therefore, there are really three questions involved.

First, Whether the apparent course of nature can be altered?

Secondly, Whether the evidence produced to prove such an alteration be credible?

Thirdly, If it be credible, in what manner the miracle itself becomes evidence of any particular doctrine, &c.?

Now, first, that the apparent course of nature may be altered; that a singular exception to hitherto universal experience may take place, has been proved by means of the doctrine of efficient cause, not only here, but more at large in a former essay; and it may be added, that when men are not jealous on account of consequences, they are not in the least indisposed to admit evidence to the truth of such "marvellous" and singular occurrences.

The possibility of an interruption to nature's undeviating method, places therefore a religious miracle as far as its *possibility* goes, precisely upon the same footing as any other *singular* event for which an adequate cause is supposed, although it be undiscoverable, and renders the miracle equally fit to be an object of investigation as to the fact of its existence, with any singular event.

Secondly, If the testimony to marvellous events be made under such circumstances, that no sufficient motive can be imagined to tempt the witnesses to falsehood; if the events be such as would rather induce a cowardice of assertion concerning them than the contrary, then the evidence should be considered as worthy of confidence, and the facts honestly related.

Thirdly, The manner in which marvellous events prove a doctrine is as

follows : The events in question being alleged to occur by the operation of a *cause* known to be inadequate to the effect ; the mind is thence forced to refer to an *adequate* cause, and rests in the notion of superior power being present, and in action.

The command of *apparently* a human voice bids the dead arise, and they do so. The spectators thence *infer* that necessarily “ *one greater than Moses,*” or any human legislator is present, in order to be acquainted with the possibility of the action, and the powers to enforce its accomplishment. Hence it follows, that such events are needed in order to give authority to certain doctrines, and under such circumstances, however marvellous they may be, as exceptions to nature’s course in fact, they are nevertheless *probable events* ; because as *means* necessary to an *end*, they obey that analogy of nature, which consists, in using necessary means towards every event that is

brought about; they are, therefore, to be regarded as exceptions *probable* to take place, and the evidence of them is therefore to be received and examined, by the rules of evidence upon ordinary cases.

When a doctrine is either a wicked or foolish doctrine, such events are so *improbable* to occur as connected with it, that the same evidence will not answer, and I will venture to add, has never been offered.

Therefore it is, that the nonsensical differences in the Church of Rome, cannot be supposed as worthy of being settled by miracles; none, also, who allege miracles to have been wrought on account of such trifling disputes, or other matters equally insignificant, lived the lives, died the deaths, or preached the doctrines of a Paul, Peter, or John.

The testimony of those who assert miracles to have taken place in order to establish some favourite dogma of

their own, without the sacrifice of any interest in consequence, is liable to the strongest suspicion of being the result of self-interest and fraud.

To prove a revelation it is necessary, first, That there should be miracles which testimony alone can be the means of recording. Secondly, That they should be such in which the senses cannot be mistaken. Thirdly, That there should be some notable overt acts of the witnesses, of sufficient self-denial in their sacrifices, in order to prove they believe in their own assertions.

It is in respect of the two latter particulars in which all spurious miracles are found to fail. They are either matters in which the senses of men might be imposed upon by the artful, or such asserted facts, whose truth never cost the bloodshedding of those who professed to have been their eye witnesses.

Such distinctions as these if better analysed and arranged than I can pre-

tend to, would sink into utter disgrace Hume's childish comparison of the miracles of the New Testament with those of the Abbé Paris, and others of a similar description.

It was my original purpose in this Essay only to attempt a refutation of the argument, which Mr. Hume built upon his doctrine of causation ; but as there are two objections frequently made to a supposed method of reasoning, in relation to the miracles, which may be thought to bear upon some of my observations, I may be permitted to notice them also.*

First, It is objected, “ *That to say, the doctrine proves the miracles, and that the miracles prove the doctrine, is to argue in A CIRCLE.*”

To this objection I would simply reply, that it possesses no force, when the questions to which it relates, are properly distinguished in their conception, and separated in their state-

* See pp. 339, 340.

ments. The questions therefore which are proposed ought *not* to be,

1st. Whether the doctrine be true? to which an answer in the affirmative may be supposed as returned,—*because the miracles alleged to be worked in its favour prove it*;—and,

2ndly. *Whether the miracles alleged to be wrought in its behalf be true?*—to which also an affirmative is given; and that, *Because the excellence of the doctrine proves them so.* But

1st. Whether the doctrine be such as would justify the interference of Deity, IF such interference could be proved? and

2ndly. Whether there be sufficient evidence to prove the fact of alleged miracles, in order to sanction a doctrine which when *independantly* considered appears to be worthy of a divine author?

When these two latter questions are answered in the affirmative, no illogical answer in a *circle* is given to them, as any one may plainly perceive, however

little skilled in the technical rules of reasoning. No doctrine indeed can *prove* the existence of miracles, but it can be of sufficient use and importance to render itself *worthy* of being authorized by their interference, thereby placing the *probability* of such a fact taking place, *and the evidence required in consequence*, precisely upon the same footing as that of *any event in nature*, where means are necessary to be used in order to the attainment of any given end. The excellence of a doctrine, therefore, merely proves, that it *might* be of God, but miracles are wanted to prove that it *is* of God; when therefore miracles are proved by the evidence of the human senses, or by veracious testimony, they establish the authority of the doctrine, which however wise, important, or useful, would not otherwise *be binding* on the consciences of men.

The second objection is, “*That as martyrs have believed false religions, therefore the sufferings of other martyrs cannot afford the proof of a true revelation.*”

This objection arises from an erroneous view of the nature of the circumstance proved by martyrdom. It is *not* the TRUTH of a revelation, but it is the *sincere* belief of the martyr in his own profession; the circumstance of martyrdom affords a proof against *hypocrisy*, not against enthusiasm, or delusion. Now to have a proof that a man *is not an impostor*, is a great point gained; for if he deliver a doctrine, of consequence, it obliges every honest mind to open his books and examine it with impartiality; and to consider seriously, whether with respect to those events which he professes to have witnessed, his senses, and his understanding could have been deceived as to their real occurrence.

To me it appears impossible that the first Christian preachers could be impostors, when I read of their sufferings; or that they could be deluded when I read the history (for instance) of the raising of Lazarus; and if but one miracle be overwhelming in its

evidence, the rest which are associated with it in the same cause, are included in that evidence, and yield the same additional force in their testimony to the senses, and to the judgments of those that witnessed them, (and by parity of reasoning, to those who hear of them afterwards,) as do the *frequent return* of the external objects of sense, support the belief of that *independant* existence, of which the first vivacious impulse on the senses had originally created the impression.*

In short, if the Gospel be a mystery, yet that it should be untrue would be a greater;—however, what I have said with respect to martyrdom as applicable in the way of forming an argument, is only needful for succeeding generations. It is necessary for us who live at this day, that the Apostles should have suffered, and have sealed their books with their blood.

* See 1st Essay, C. 3rd, “on the *Independancy* of E. Objects,” p. 78, “Thirdly,” &c. comparing that sentence with C. 1st, “on *Continuous Existence*,” p. 13, “For the mind,” &c.

ESSAY IX.

ON THE OBJECTION MADE TO FINAL
CAUSES AS ENDS, ON ACCOUNT OF
THE EXISTENCE OF PHYSICAL EFFI-
CIENT MEANS.

THOSE who conclude that a final cause is not wanted for the phenomena of the universe, because there are physical causes in action, efficient to the production of each object, draw their conclusion wider than the premises will warrant. They forget that in doing so, they overlook ONE EFFECT which they have to account for, namely, the *appearance* of contrivance in the universe—this being beyond a chance coincidence of effects, arising out of a *determination of motion* that had *no end*

in view. There is therefore, an original direction of motion given to separate portions of different kinds of matter, coalescing to one APPARENT end; the cause of which direction *they never arrive at by ever so many steps backwards from motion caused by previous motion*;—nay, could they even come at the original direction in each case, and could they even perceive that a material motion preventing, acted as the first *sensible* propellant, it would not follow that *mind* were not truly the final, i. e. the only efficient cause in that case;—for, mark what it is to be a final cause when it acts in ourselves;—it is to be that perception of future qualities, and that intention to create them, *which forms the efficient cause of the direction of motion upon those qualities which are already in existence*:—To be a final cause is to perceive a future possible quality, capable of being gained by that means in our power, called the direction of motion. But to *perceive* is a mental quality; yet is it a quality which whilst

it is not to be descried by any sense or instrument, chemical, or mechanical, in our power, nevertheless intimately unites in and with the action of the brain, which action might be discerned, and would, therefore, be considered by incomplete reasoners as the true pre-vening motion which alone determined the next in order, towards the supposed end. Yet PERCEPTION *of happiness, or utility*, and the chosen direction of the eye, the ear, or the arm, in consequence, is not the mere action of the brain, the nerves, and the muscles.

According to the language of some modern writers, we might, after beholding a well constructed ship in full sail upon the waters, and examining each part in relation to the wind, and the waves, and the point at which it appeared destined to arrive; consider these aptitudes as *accidental* and undesigned, in order to prove which, each motion might be traced backwards as resulting from the necessary physical, mechanical actions of matter, until we

arrived at the original materials from which the vessel was framed, along with those other actions of matter, viz. of the muscles, the nerves, and the brains of the human beings concerned in the arrangement. But we know by experience, this will not explain *the whole* objects which have been in action on the one hand; nor on the other, could we descry, by the nicest instruments we possess, the power of sentiency as a physical cause, changing all the various material beings concerned in the formation of the magnificent object before us;—going on its way in its grand and easy motion. It is not possible *a priori*, therefore, among *our own contrivances*, to discover by *physical examination* when it is that reflection, determination of reason, or passion, have interfered to alter the things we see; the powers of mind are one with THE VISIBLE AFFECTIONS of matter, they inhere as one physical cause along with them; the one power may be discerned by the senses, but

the other cannot; and is only to be known by experience of what passes within ourselves. To know whether the action of mind in any case be the director of motion upon the things already in existence, we must examine some given state of their being; and comparing them with such things as we know to be governed, arranged, and adopted by mental qualities, judge with discretion and impartiality, whether they be of *a like kind*. We must judge of the probability whether they be designed aptitudes, where perception of possible qualities had directed the motions of matter towards their accomplishment, or whether such appearances were the mere accidental results of the necessary efficient causes of undesigned interactions of material qualities.

In human affairs to judge properly in many cases, whether intellect has been at work or not, requires extraordinary powers of understanding,—higher faculties of mind than the ab-

stract sciences stand in need of. The knowledge of human nature, “which though no science, fairly worth the seven,” is nothing but the penetration which enables us to discover the intentions that govern the motions of ourselves and others. In many cases it may be difficult to say, whether *any design whatever* has been in action, and in many more of what number and kind were the ends designed; certain it is, that in productions of the highest order, or in very involved operations, *design* is not apparent to some meaner capacities. The master pieces, for instance, of music, sculpture, or painting; the delicate workmanship of a time-piece; the simple positions of the parts of a telescope; the wonders of the steam-engine;—might any or all of them upon being presented to an Esquimaux Indian, merely occasion him to stare with an undefined astonishment; or if closer examination and reflection suggested that they were productions of more accomplished beings

than himself, upon the friendly, or unfriendly exercise of whose powers, his well-being might depend, his anxiety might endeavour to hide itself under some such words as these: “ Ces merveilles meritent bien sans doute l’admiration de *nos esprits reflechies*: mais elles sont toutes dans les faits; on peut les celebrer avec toute la magnificence de notre langue; mais gardons nous bien d’admettre dans les causes rien d’étranger aux conditions necessaires de chaque existence.” “ Nulle part sans doute les moyens employés ne paraissent si clairement relatifs a la fin; cependant ce qu’il y a de sur, c’est que si les moyens n’avaient ici resulté necessairement *des lois generales*, ces creatures n’existeraient pas.”

If in any case we mean to exercise an unbiassed judgment, whether a mental foresight and design have been in action, we must begin *à posteriori* to consider the object, and examining some pieces of *apparent* workmanship, ask, if they are instruments and organs

fitted and *designed* to ends or not? and if they do *seem* to be such, we ought to judge they are so; and *if* they are, no mechanical, or physical actions of mere matter will account for the mental quality of design. There must, no doubt, in every step of progress be efficient material causes for each various state; but amidst those material actions *somewhere* there must have been perception of possible qualities, and direction of motion in consequence.

Amidst the apparent contrivances which mortal beings have had no hand in arranging, it appears impossible to descry, or detect, the point where mind *perceived possible qualities*, and directed the aptitudes of various motions, but that mind must be the cause of that which the understanding concludes to be contrivance, is an argument, though short of demonstration, yet of the highest analogical proof; and one which determines our conduct in human affairs invariably, and irresistibly. The original intention, *with its effect*, the imme-

diat direction of motion, may have commenced in the eternal mind at the beginning of this universe, or it may have existed through eternity, coeval with and essential to the Deity: As to which of these, we have no possibility of preferable conjecture; but the eye, and the heart, and the brain in animals; the sun, the earth, and the moon, amidst what is termed inanimate existence, and all things of a like kind must all have been matters of contrivance.

If any man looking at these, and the like objects with me, denies this, I need not compare my ideas with him. —Now all the efficient causes in the world put together, will not account for a mental result. We must have *the efficient cause* for the disposal of existences which are instruments and means to ends. We must have intention of such, perception of qualities, direction of motion.

I consider, therefore, first, the appearance of design, that is to say, that which *reason* after examination admits

to be the appearance of design, as the only proof of design; it is the only proof of it in human contrivances; and, secondly, that the argument is futile which would attempt to show, “ That
“ the physical actions of matter being
“ sufficient to account for the mere
“ physical results which accompany
“ such apparently designed results, the
“ efficiency of INTENTION *in the direc-*
“ *tion of motion on matter*, is not
“ needed.” Because admitting for the sake of argument, there is no design, then the physical actions of matter must be allowed to account for, or be deemed the whole cause of the apparent contrivance; yet, on the other hand, admitting for the sake of argument, that there is design, still all the physical actions of matter *must be* same, and yet could not be deemed the whole cause of this apparent contrivance, for by the terms of the proposition, design is admitted as one. The efficiency, therefore, of physical cause is evidence neither for nor against

design, but leaves it open to proof by analogy or otherwise.

Thus the examination of the actions of matter *à priori*, can never in any case form a criterion, whether design, mental perception, has been in action or not. Therefore, whether a circumstance be designed or not, must always be examined *à posteriori* and be judged of by a sound mind, observing its analogies, its tendencies, its bearings upon others, &c. If these favour the notion of design, we must conclude that *the mental perception*, which is the only efficient cause equal to that beginning and direction of motion which can accomplish contrivance, has been in action. *Detected, or detectable*, physical efficient *prove neither one side of the question nor the other*; because *in both cases* they are *equally* wanted towards *the mere physical* results taken notice of: the only difference is, that in *the one case* there must have been a point where some mental perception directed the motions of mat-

ter: (an event not detectable amidst those motions;) on the other, motion of matter must have directed the motion of matter through all eternity,—leaving its beginning and direction to have existed without any reason or intention whatever, although wherever we turn our eyes, different and independant kinds of matter coalesce to useful and important results.

Lord Bacon has been quoted as authority for rejecting the doctrine of final causes, as though he supposed it unnecessary to explain the motions of nature, and as fitted only to deceive the mind from physical inquiries. All that Bacon meant to say, or indeed did say, was, that it was equally ignorant and vulgar, idly to give design as the only reason for the physical properties beneath our view; for the interaction of different kinds of matter; and thus prevent *the analysis by experiment* of their physical properties, in different situations with respect to each other, as well as in relation to our senses.

Lord Bacon was a severe theist, and never imagined for a moment, but that a God had designed and arranged to given ends the whole of what we see around us. Lord Bacon, for instance, would have thought it ignorant, idle, and vulgar, were the physical *causes of* HEAT inquired into, to have it answered, that it arose from the spark *intentionally* communicated to a heap of wood. Nevertheless he could not deny in such a case, that the intention to create a partial fire, and the means used towards it, were the one its final cause, the other, its efficient causes. Bacon admitted the mental ruler of motion in the immense ends contemplated in the universe, and the wise and efficient means which must have been used towards them.

But to say the truth, I much doubt if Bacon, or Newton, or any philosopher, has sufficiently considered the manner by which a final cause truly becomes an efficiently physical cause for the beginning and direction of mo-

tion. No doubt it is an answer “*barren*” of every idea capable of yielding a notion that the question is properly understood, when the *reason* for the voluntary compounding of any aggregate of materials is given as a satisfactory answer to an inquiry into the nature, and the number of the materials used for such an aggregate; or, if the ends to which any parts have a tendency as means, be assigned as the given, physical efficient for each step of the means towards that end. On the other hand, all things in a strictly philosophical sense, form ONE NATURE, and it is impossible to see the *operations of nature* in a clear point of view, unless the manner be clearly perceived, by which final causes become identical with those which are efficient.

A final cause properly signifies the mental perception of an attainable end; the contemplation of a certain number of qualities, the determination of whose existence is known to be in the power of the efficient agent, by his voluntary

direction of the motion of those already present with him. Thus *a final cause is the efficient cause that determines the will; and WHICH WILL, is the efficient cause that determines the direction of motion upon matter in any given case.*

In this sense, the whole forms one compound PHYSICAL *efficient cause, without which EVERY ENDEAVOUR to explain the different directions of motion which we perceive in the world would be NUGATORY.* We might, for instance, in vain lay out to observation every *material* motion, which could be detected by the senses, or by the nicest experiments, and all the general laws as they are called of physical attributes, whether mechanical or chemical, in order to account for the powers by which a bird at first exerts herself, and for the path in which she directs her flight; if her perception of the intention to build her nest, and of the place where the materials lay; if the inherent nature she possesses of a capacity capable of perception; if the interfering causes capable of exciting

it, were omitted in the examination of the *physical causes* for the beginning and direction of her motions. In this sense *final* is nothing more than *a name* for a compound set of PHYSICAL EFFICIENT CAUSES, undetectible by the organs of sense, but known of by experience of their very *essence* and *primeval nature in themselves*, and by *reason* and *analogy* to be exercised in other similar beings, as alone capable of yielding those appearances of contrivance and design of which we take notice, and of forming the conception of those wise ends we every where perceive around us, and which appear to be gained by appropriate, various, complicate, and elective means.*

If we direct our views from the contemplation of the ends attained by animated nature, and look abroad upon the material motions, and the effects which they determine in the inanimate universe, we also every where perceive

* See Recapitulation.

appearances of designed ends to have been held in view, and of means of accomplishment to have been used towards them, incomparably more numerous, more difficult of arrangement, and of a larger comprehension than these.

It is in vain therefore, to invent the word *attraction*, as though it were *alone* sufficient to express the whole of the physical causes known for the beginning and direction of the motions we see. It is a word as well suited as any other to express the *effect*, the direction of the motion of *bodies towards each other*, according to those laws of velocity which given densities observe; but to imagine there is a certain given physical quality in all matter, which makes it endeavour to *draw* other *matter* at a distance towards it, which in its turn possesses *the physical quality to be drawn* in that direction, is to invest matter by the deceptive use of a metaphor with a mental quality, while yet *no consciousness* is supposed. It is in this sense a mere hypothesis; no organ

of sense ever detected it; no experiment ever found it; no reasoning ever deduced it from admitted premises; the laboratory of the chymist never elicited it from any convincing trial;—on the contrary, so far as the conception of the mind can frame such an one, let it be done.—Let two balls be supposed, of the relative sizes and densities of the sun and moon;—and to be placed at the same relative distance in a state of *complete rest* in an exhausted receiver, with *empty space* alone between them; is it imagined for a moment they would ever begin to move, and direct their motions towards each other after any *law of attraction* whatever? They could not,—for the causes being efficient to *rest*, they could not be also efficient to motion. And if it be said the bodies were not or could not be *at rest*, then they were in motion—but motion is not *attraction*, and the motion supposed, still lies in need of being accounted for, both in its beginning and direction.

It may be thought bold to venture any objection to the Newtonian theory; let it, however, be remembered, that I am speaking of Bacon's method of philosophizing. He wished to introduce observation of, and experiments upon nature, before he assigned physical and proximate causes for any given fact, instead of hypothetical occult modes of action; or the ends, instead of the means. I therefore say, that the Newtonian doctrine of attraction is contrary to Bacon's mode of philosophizing; I am aware the Newtonians shift their ground when it is said, "*the principle stated for the motions of the universe is but an hypothesis;*" they retort, "the word is merely used as standing for *the effect*, for the motions we see, and the laws they observe;" to which sense I am willing the word should be applied;—but in the original Newtonian meaning, it signifies a *quality, an attribute of all matter as matter*, by which it *begins* and *directs* the motions of bodies according to their densities, at a distance

from each other ; and that they can do this with empty space alone between them. To which doctrine I would oppose, that the existence of such a quality is a mere hypothesis, not to be detected by observation of the senses, or by the experiments of the laboratory, or imagined by a mental conception of possibilities.

The beginning and direction of motion among what we term *inanimate bodies* has still therefore to be accounted for ; and I much doubt whether any notice of the senses, any trial of the receiver, the retort, or the cylinder, any mental conception of a possible experiment, will yield to us the true knowledge, of the causes for the beginning, the direction, and the continuance of the magnificent operations we have it in our power to contemplate, rather than to understand.

The most that I would contend for on the subject is this, that we should reason with impartiality from what we know, to what we know not. To con-

sider things as probable to be like, which appear so; to refer such like effects to like proximate causes, however such proximate causes may be united with different aggregates of qualities;—with *beings* not in relation to our senses or *experimental* observations.

Keeping to so simple a mode of reasoning as this, the ends, and apparent contrivances we perceive in nature must have had their final causes; must have been effected by reason of the mental perceptions which yielded to some mind those results of the understanding, and that determination of will, which were necessary to discover and to direct all the efficient motions towards the phenomena in the universe.

When so much of intention must have had its share of physical impulse in some time and place, whilst the nature of matter in general, and different kinds of it in particular, is for ever hidden from our scrutiny, and on which such intention must have operated;

how is it possible that we should ever arrive in this world by the few inlets of knowledge we possess, at the true causes for the whole physical phenomena in the motions we perceive in any given case. *Attraction* is a word fitted to keep the Deity for ever out of view ; and I freely confess it often suggests to my mind an idea as ludicrous, as the supposed quality to which it is applied appears to be futile. It suggests qualities in matter which are only consistent with a capacity for sensation ; and when it is used with respect to inanimate objects is but of metaphorical application. Its direct meaning expresses a mental perception, a determination of the will, governed by the approbation of qualities belonging to the object of attraction.

To transpose therefore, the word which is expressive of this kind of *drawing* towards each other, to the motions of matter, as though the conversion of a term could suggest any defined idea of the true nature of governing causes, is merely

to hide an unproved hypothesis by means of a metaphorical allusion.—The assignation of this occult quality, as forming a component part of the very essence of matter, has afforded to atheism its most powerful refuge. When other arguments have failed, the attractions and *repulsions** of matter, elective attractions, &c. are assumed as *efficient causes* in each step of the progress which forms an animal, or that governs the motions of a planetary system, and no other is supposed requisite to account for those grand and beautiful designs.† When such an experimentum crucis shall be made, as that parcels of matter of different bulks, shall at a distance from each other,

* When bodies start off from one another, then attraction as a quality of matter as a component part of its essence, is obliged to be given up; and the *repulsion* of particles (its very contrary) is assigned as the *efficient cause* of the *particular motions* of matter so affected. In what sense then is it possible that attraction can be called a general quality or law?

† I allude here to a well known French author.

with empty space alone between them, and being forcibly placed at rest for a moment, be afterwards left at perfect liberty, without any foreign impulse on either towards motion, *and without their being affected by the motions of the earth, of which they are forming a part*; when in such a case, they shall bound *towards* each other, then shall I believe in an inherent quality as capable of such a propulsion, but till then, I feel it to be impossible:—I say *forcibly* held to rest, because, if attraction be the quality described, all things would ever be running towards each other, and eventually form but one being, unless there were opposing forces, which must in their turn have an extraneous cause. Also if the *inherent* capacities of matter are equal to motion, they cannot likewise ALONE *be equal to rest*. And if equal to rest, they cannot ALONE *be equal to motion*; because I trust, that I have proved, that every *various effect* must have its cause. An *exact experiment*, however, could never be made,

because the earth's motion must affect all the bodies on it—and the *forced* rest would only be a relative state. The moment the balls were left at liberty, they must be acted upon in some way, by the swift motion of the greater ball on which they were called forth to exhibit their minor movements. .

But it must be *rest* which is the natural state of matter, and it must be motion which requires an extraneous cause :—because rest does not suppose motion, but MOTION implies REST ;—for the difference between the times of the respective velocities of any two given bodies, over a given space, is equal to the *rest* of that which has been the slowest, during the time of the difference. Rather, therefore, than refer the beautiful arrangements of the heavens and the earth to the occult, unproved qualities of attraction and gravitation, I would chuse to consider the beginning and direction of their motions to causes analogous to those with which I am acquainted. Then it is that

a grand feeling bursts upon the mind.—
A cause in action like in kind to that
which I know of, but different in degree,
and which may account for the origin of
all the motions in the universe, and all
their directions towards the designed
ends, which in every various manner
take place in the infinite and eternal
universe—such an adequate and efficient
cause as this suggests a conception
commensurate with the Deity it demon-
strates, and compels an unlimited wor-
ship of his unbounded essence.

ESSAY X.

THE REASON WHY WE CANNOT CONCEIVE OF SENSATION AS EXISTING NECESSARILY, AND CONTINUOUSLY BY ITSELF.

SECTION I.

The general power of sensation contrasted with that which is particular :—its connection with immortality.

It is difficult to perceive the ground of our belief in the continuous existence of something, the subject matter of all changing sensations, and why that something must be other than continuous sensation itself. I believe this opinion is not owing to any unreasonable or accidental association of ideas ; but to have its ground in those simple modes of the understanding which are

only of difficulty in the detection, because they are too simple to be capable of much analysis, and have from the most early habits of thought, become so much a part of our very being, that they do not admit of the recollection of their commencement. Nevertheless I consider the fact as indisputable, namely, that we cannot conceive of sensation existing in, and by itself, and therefore, that there must be a cause for this opinion.* Let us endeavour to find what it is, and whether when found, it can be substantiated by reason, or, whether it must be rejected as some fallacy, generated rather by an association, than conducted from a comparison of ideas.

The first and original reason for this opinion, is justly founded in that notion which forms the primeval law of the understanding, ‘*that no quality can begin its own existence.*’

* Mr. Reid and Dr. Stewart regard this idea as an ultimate fact, or instinctive belief.

Had there been but one simple quality in existence, and that at rest, no other could ever have been deduced from it: for there could have been no interference, no producing cause, whereby another might have been created. Now, although we do in our experience know of a stream of conscious sensation kept up at intervals for many hours, and therefore it might be supposed that we could imagine such in a superior nature, to be continued without sleep; and thus sensation, simple sensation, exist in and by itself without interruption;—yet let it be remembered, that during any state of continued conscious sensation, the whole is compounded of parts of different kinds: there exists a succession of different sensations, (simple or compound,) each of which in its turn vanishes; therefore as each vanishes, all vanish, and sensation could have no reason for its existence, unless a continuous being existed, indifferent to sensation, capable of being excited when interfered with, by

appropriate qualities fitted to produce it.—Such a being is the subject of successive sensation,—such is a capacity for sensation,—such is mind. The interfering beings may be called organs or any thing else ; but the continuous capacity for sensation alone is mind. Its nature we cannot tell. Its essence cannot be *matter*, or the quality of solid extension simply, because *all* matter does not *feel* with the same *interferences*. If a stone be thrown from a height, it does not suffer pain ; but if there be a quality so far inhering as a dormant capacity in all matter, that being placed under certain supposed conditions, and fitly interfered with, it will feel ; still that continuous capacity to sensation is a being properly termed mind ;—If on the contrary, it be a quality which has its own appropriate extension as ready to be interfered with by fit organs, much more does it seem to merit that appellation, as one used in contradistinction to every other kind of extension

whatever :—In either case, *the organs* or qualities which excite a *variety* of sensations, are no more the one continuous being which feels, than the hands of a watch that mark the hour, form the essence of time, or than the instruments which serve to keep alive a partial flame, are of the nature of eternal heat.

It is here that the materialists err,—they can make no distinction between the nature and use of those organs which are necessary towards the eliciting each sensation in particular, from the *continuous* power which must exist as a totally different being, as a complete variety of essence from that of the solidity, the extension, and the action of such interfering organs.—These may be wanted either as *interferers*, or as instruments fitted to generate some peculiar quality of matter in a more appropriate relation to the capacity of sensation than themselves, but they are not the mysterious eternal power of feeling, which has been conveyed to

each animal as its inheritance from the commencement of its species ; and which as a continuous existence must be an eternal power in nature, and as immortal for the future, as it must have been without beginning in the past.

It may be modified by methods of infinite interferences—but its essence is one, and for ever. Memory of sensations in the rounds of time may be obliterated or retained, according to the mysterious and occult laws which govern the interferences ;—but the capacity, the being, which can respond to joy or sorrow ; can be lofty or degraded ; can be wise or foolish ; can be “ *the first-born of all things,*” or the crawling insect ; can “ understand ” *the imaginary motions* of “ fluxions,”—or being fastened to the rock, possess no powers of motion, even of the simplest kind, whereby to resist or escape the influence of the surrounding wave ;—this subject matter for each variety of sentient perception, or action, must for

ever exist: it may, for aught *we can demonstrate*, retain its individual consciousness of personality, communicated to it by particular interferences as in man, or be lost in the eternal ocean of mind: it may, under such modification, be improved and go on in a state of moral amelioration from the smallest touches of instinctive affection towards the first of its own kind which it acknowledged, to the perception of all the charities of friendship, and kindred, as preliminary to the consummation of angelic love hereafter; or be absorbed amidst the properties only subservient to animal existences.—Still the invisible, but demonstrated existence, must live for ever; it may be interfered with more or less,—it may be modified more or less, by all kinds of organs and their powers;—but its essence is one, and for ever.

The proper question, therefore, concerning the immortality of the soul, is not whether it can survive the body as a continuous existence—for it must be

eternally independant of any particular set of organs in past, as in future time.—But the inquiry should be, whether when the organs which are in relation to any individual capacity, undergo the change called DEATH, if the *continuing mental* capacity become simple in its aptitudes again, or, whether it remain so far in an altered state by what it has gone through in the present life, that it continues as the result of that modification? Whether from any other interfering powers than those of the visible body, memory and sense shall be elicited; or whether a total variety from any memory shall be the result and consequence of its former state,—analogous to the powers of knowledge which foetal consciousness yields to infancy, and infancy to manhood, without conscious *memory occurring* as an intervening cause?—Whether as a dormant capacity it remain unexcited and unconscious of existence during eternity, or, whether amidst the infinite changes of duration it shall start into

life, under the modification of appropriate interfering qualities ?

The *latter* supposition is a resurrection from the dead, is the life of the same mind anew excited ; whilst the *previous* suppositions imply those states of mental existence so much discussed by the different sects of philosophers : for almost all men and nations have perceived with more or less distinctness, that the *subject matter* of their changing sensations *could never die*.

That a total obliteration of feeling should take place when there is a capacity for it, is contradicted by the analogy of nature, though we may not be able to demonstrate the contrary ;—powers of change amongst organs perpetual motions in nature fitted to act as interferers, are around and about us visibly, and invisibly.

Also, by the laws of the same analogy every thing is progressive ; every thing, (whether designedly so or not, is not now the question), is a means to an end. That moral capacities and im-

provements ; superior benevolent feelings of some above others ; the higher acquirements of intelligence ; the completion of virtuous habits, &c. should have no connexion with that portion of the eternal mind which has been allotted to the species called man in the ages of futurity, seems contradicted by that analogy.

This argument appears to me to be as far as philosophy is capable of going. It demonstrates the essential eternity of all mind ; it renders probable any given state of it, as connected with any after state in the relation of cause and effect ; whether with or without the revival of memory, and thus must to every candid inquiring mind offer a very strong presumption in favour of the testimonies of tradition, (to call revealed religion by no higher name, for the present.) If any one should conceive the analogy of nature not to be maintained by the supposition of the possible extinction of memory in after life, let it be recollected that

the infant remembers not its state before birth, nor the young child the state of infancy, nor the full grown man that of the very young child ; yet that each of these mental states improves by what it has learnt in knowledge, (*if not in virtue,*) from that which immediately preceded it :—All the ideas of simple, sensible qualities ; of colour, figure, sound, and taste ; of heat and cold, hardness and softness, smoothness and roughness ; of rest and motion ;—all axioms termed “ *mental laws of belief,*” as well as many which are the foundations of science ; such as, ‘ There must be existence in order to feel ;’ ‘ Things do not make themselves ;’ ‘ We ourselves and the causes of our feelings are not the same beings ;’ ‘ The whole is greater than its part ;’ ‘ Equals added to equals the wholes are equal,’—with the converse of that proposition ; the original feelings and all the principal associated emotions of self-love ; the chief features of the grammar of a language, with names assigned to most of

the objects of sense, and many *abstract* ideas; in short the foundations of all knowledge, and the ability to express it, are acquired at a time, which does not by any method transfer the memory of the impressions by which the knowledge gained was acquired; although its result, the memory of these ideas, be united to every new impression which then arises.

Therefore, in like manner as the child must assuredly be born though the fœtus know it not, and man be in possession of ideas whose source is hidden from him, so may there in succeeding ages arise from the ashes of this, another universe connected with it as its natural effect and consequence:—Then every sentient power it may elicit, every single thought each various being may possess; every capacity which shall then be demonstrated, may be the results of the present universe of thought, will, passion, suffering, or joy; ignorance or knowledge, virtue or vice, faith or profane-

ness; and that perhaps without any acquaintance being imparted to it of the former state on which its then destination shall hang. On the other hand, we are all aware of the analogies in favour of conscious memory hereafter, from the conscious memory of man through youth and manhood, of transactions during those periods.

Under the balance of these analogies the testimony of scripture in favour of the renewal of conscious memory is as a casting die, which to any man who reasons as a philosopher, must affect his judgment.

I am convinced there are many whose understandings take this view of the subject, notwithstanding they may permit themselves considerable latitude in their reflections on it. As for myself, though I think that, independant of the inference 'from scripture, the reunion of memory to future consciousness presents no philosophical difficulty, yet I could be well content in the trust that,

the inquiry for truth should be rewarded by the finding it, whether the present labour in its search be remembered or not; that the charity which sympathizes in witnessing pain, should be enlarged only to promote or to delight in the perception of pleasure, whether former misery be obliterated from the fancy, or not;—that an instinctive devotion towards God should meet with higher demonstrations of his presence than our faint conceptions here are able to embrace, though the satisfaction arising from the comparison should be then denied; and that the conflict here with doubt, difficulty, suffering, temptation, and the observation of evil, should terminate as well as the memory of it, in the personal consciousness, and the notice of surrounding happiness; in a secure and perpetual possession of truth; in the love and the enjoyment of the practice of every noble and kindly virtue.

ESSAY XI.

ON THE IMMATERIALITY OF MIND.

Sensation as a simple quality contrasted with that of solid extension.—Its power to begin and direct motion.—Application to Deity.

BUT there is still another reason for considering sensation as a simple quality incapable of existing *in itself* and *by itself*; which is, that though it does not occupy space as solid extension, yet it has a necessary relation to space, by requiring space in which to exist. In this light each particular sensation must be the unextended quality of some kind of extension, whether considered as empty space, or as solid matter; or as some form of extended being not detectable by any organ of sense. If for argument's sake, there should be

supposed to exist one hundred square feet of empty space, and ten sensations at any moment within that boundary,—those ten sensations would appear as a component part, or affection of that space during such time, and they would together form one being. If again during each succeeding moment for an hour, ten sensations of a different kind from the ten preceding ones, should successively arise, that space would as the substratum, or continuous existence of which the sensations were the varieties, be the subject matter of which they were the changes. Now instead of empty space, of *nothing*, which never could be rendered a *something* fraught with every changing sentient quality by any interference whatever,—let there be that mysterious *something* capable of feeling, offering no solidity to touch, no impenetrability to resistance, no colour, nor sound, nor taste, smell, or other quality to the observation of any sense;—let it be equally as extended as empty space, as

little of matter as that unresisting, equally diffused medium would be in any given place—but let the *capacity* to feel exist in its own extraordinary essence; let such be within the given compass of any individual organization, and this substance would exist as the capacity of an individual mind. Its power may be perfectly simple, or it may possess fit aptitudes to retain the impressions once made on it, independantly of the organs; but certain it is that its *simple perceptions* of happiness or utility direct the motions of matter, and that the union of sentient and insentient qualities is so intimate as to coalesce, and together to form the physical efficient cause of the beginning and direction of motion amidst the powers of nature; and that in a manner which is not capable of being discovered by any sense, or instruments in our power:—so perfectly *one* * is it, indeed, with the powers of matter, with whose mechanical actions

* See note, p. 312.

it *interferes*, that were it not for their own experience, our modern atheists might deny its perception of ends, and its direction of means, as final and efficient causes amidst the motions they witness.*

Let not any one think from what I have advanced that the mind and consciousness of Deity are put in doubt by this reasoning; so far from it, the ideas really contain a demonstration of his essence, and the steps towards it are few, and short,—since we perceive instruments in existence which are means to ends, there must be the director of motion, the *perceiver of ends*, the former of instruments in the universe;—perception of ends and direction of means, are mental qualities; are the properties of the continued existence, called mind; mind therefore must have been at the fountain head of these contrivances; but not a mind whose existence is more invisible than

* See preceding Essay, p. 360, also, the following Essay, pp. 404 and 405.

that of our own minds to each other ; although experience informs us, that the great, the universal mind which must have executed these works is not united to any small defined body with which we can become acquainted by our senses ; therefore it is a hidden mind, although we know of its existence, by means of REASON. As mind, its eternal continuous capacity is demonstrable by the same argument as that of all minds. The capacities for being must be eternal ;—changes may vary, but *the subject* for changes is eternal, and can have derived its original essence from no previous change.

The universal mind, the infinite space for his residence, the amalgamation of all possible qualities in nature in One Being necessarily existing,—the capacity of perceiving all ideas executed in his own mind by the eternal, necessary, and essential union of such qualities as are fitted to the consciousness of all future knowledge, the circumference, towards which is propelled every direction of

motion which forms the creatures,*—this is GOD, as far as our natures can contemplate such an awful, infinite, and invisible being.

Let it not be retorted, that it is easier to conceive of all the little changing beings we know of, as existing without a creator than of such a being; for I answer, it is *not* easier so to think; the one side of the dilemma involves a contradiction, the other does not; the one is to imagine the existence of a series of dependant effects without a continuous being of which they are the qualities, and is equal to the supposition of the possibility of every thing springing up as we see it, from an absolute blank and nonentity of existence; the other is the result of referring like effects to like causes. The one is to regard each little being we know of, as the strange appearance of contrivance without design, and of being at once a series of changes in relation to no end, though apparently directed to it; the

* See Paley's Theo. pp. 301, 302.

other is to believe in the infinite universe of mind, matter, space, and motion, eternally and necessarily existing: generating the creation of all minor existences in every form and kind that is possible, through the rounds of ceaseless time.*

* See note on matter, p. 401.

The author hopes it will be understood that the object of these latter essays is to answer certain atheistical opinions to be found in various writers; and not to arrange a system of theological philosophy, or to attempt an improvement of those stronger arguments in favour of Deity, which have been advanced by abler hands.

ESSAY XII.

ON THE UNION OF MIND WITH ORGANIZATION.

I HAVE not advanced the opinions contained in the two preceding Essays, without being aware of an objection made by Atheists concerning the nature and existence of Deity ; they say that organization is necessary as a *cause* for the existence of the minds we know of, and therefore it must be necessary to the existence of the eternal mind, which is to imagine the Being, who has so arranged matter in order to a given end, to require a similar arrangement for the existence of his own being. Such an objection arises from a very partial obser-

vation of the nature and use of organization in animal frames ; as well as from a very inefficient examination of the nature and manner of causation, and especially in regarding time as necessary to the essence of cause as a *producing principle*.

Now, with respect to the use of organization, it is plain that no given individual organization produces its own powers ; each animal derives them, whether of sensation or action, from its parents ; and if *each, all* are beings derived from some other powers in nature than their own inherent properties, *after* they have been so derived : life, sentiency, and capacity to action, being *given* in and with the organs in relation to some other powers in nature capable of acting along with them, in order to the continuance of these powers,—organization then, no doubt, will be requisite as a part of the whole causes necessary towards such continuance of life, sensation, and action ; but the organs are no more the powers of *feeling* than the

strings of an instrument are music, or than the clock, which is made in relation to time, is time itself.

But let us see what the organs do.

If physiologists say right, the formation of each animal exists previous to its *separate* sensation, life, or action. These powers being also communicated in a manner independantly of such arrangement, the organization of each animal is not the *cause* of the arrangement of its own organs, nor of the first excitement to life, action, and sensibility. What then is the use of the organs? Not to yield a creation of *original powers*, but by their *separate* action (when excited) to be enabled by their relation with surrounding appropriate qualities of matter, to divide off from the parent stock, and become separate individual living beings.

The organs are, to the capacity of sensation, what the organs of a musical instrument are in relation to the air. In unison with it, they can make delicious music, but there can be none without both.

In like manner, animal frames, containing within themselves as a component part of their existence a capacity for sensation in general; and the power of inward motion being originally communicated to them by another source, are enabled, by their relation with the *atmosphere*, or *other surrounding qualities*, to keep up the motion which perpetually *varies* the perception of the original capacity to feel.

In other words, the arrangement and first action of the organs, and the animal power to feel, are *given properties* to EACH, and therefore to ALL *men and animals*, antecedently to their own action, in conjunction with the *atmosphere* under which they first draw life. Thus organization does *not* give any original powers, but merely its action *changes* the action and perception of those powers.

The question therefore, with respect to Deity, is, Does the eternal necessary essence of mind require organs to give, or to change perceptions? It does not follow, because minor beings, *derived* essences, scions from the great root of

existence, require organs in relation to surrounding matter, to keep up or alter their perceptions, that therefore the undervived Being, the necessary eternal mind, requires them. *Changes, effects,* require their proper causes, but not the mighty Being, which is *no change, no effect*, WHO IS SELF-EXISTENT.

It is a state of mysterious thought, no doubt, which enters into the awful sanctuary of Being, so far removed from apprehension by the infinitude of every quality which belongs to it; but I will venture thus far to say, that in finite creatures each particular sensation is a given state,—is a *complete UNION of the essence of mind with any other qualities necessary to excite it.*

Time, without a doubt, is necessary to *the continuance* of existence; but it is not in relation to the coalescence of the qualities which form any particular given existence. Whatever the organs are, they are but qualities, in relation to mind, or the power of feeling, with which

they unite in order to perception. But the amalgamation of such properties, is sentiency, properly so called—is one being, one power, and the changes of it are still but its continued properties.

Now, in the Eternal Essence *which began not*, and in whom must have resided the original capacities for all qualities, there must have essentially existed, not only mind or a capacity to feel, but that coalescence of qualities which must have formed his magnificent and innumerable perceptions. Here, in each animal, the first perception is *given*, and the organs, in relation to the surrounding medium, keep up a play of motion which interfere with, and change the circumscribed capacity to sensation. But there, underived, by eternal self-existence, there must be the *necessary* union of similar qualities in a *like nature* of existence in as far as it is *perception*; but *unlike* in every other respect, by all the difference between God and man—between essential, and dependant being;

between the small circle allotted to the exercise of each animal sensorium, and that which is as unconfined as infinity.

The organs, I repeat, are necessary to circumscribe individual capacities to sensation ; but the organs of themselves can *create* no original powers.

All changes are but the little beginnings of new forms of existence, derived from the Universal Essence which began not to be. *All motions derived from previous motion form together but ONE ACTION put forth originally by the essential power to begin motion, itself no motion.* To suppose otherwise, is to imagine it possible for *all* which we at present see, to be of itself capable of arising where there was nothing but a *blank*. The mind feels that such an hypothesis involves a contradiction ; that the idea contains an impossibility.

All changes must therefore be effects caused by an Eternal Essence, holding within itself the principle of change, itself no change from a former being, and thus essentially holding in unison by

the mysterious nature of his essence, (which renders it that which it is,) such qualities as are fitted to give forth those changes which form the creatures. As these manifest contrivance, and are fitted as means to ends, so that essential union of qualities must have embraced perception as its necessary, eternal, underived situation,—and when it perceived that it was possible to make man in his own image, he perceived that by uniting a finite portion of mental power with the arrangement of that which was material, under an inward motion which preserved their union, and placing such amidst the conditions of air, earth, water, and food, there would thence arise a definite portion of perpetuated combined sensations, of which knowledge of ends, selection of means, perception of moral relations, direction of motion, would be among the most important.—He created *organs* which might be the *means* of transfusing those qualities into minor portions of mind, by whose junction finite per-

ception might take place ; qualities like in kind, but not in degree, to his own, which already united and filling infinity, could stand in need of no organs in order to their determination.—In like manner, (if I may venture an imperfect illustration) we, when we would apply the powers of heat, light, or electricity, to some circumscribed end, adapt thereunto those forms of artificial arrangement *not required by the original essences*, and which exist at large in the universe, *uncircumscribed* by space or duration.

It is an attribute of Deity, therefore, which affords the subject matter and capacity for all changes ; he is the beginner and director of motion, matter, *mind, and consciousness — universal, and eternal, and necessary, in the comprehension of all possible qualities ; whilst each individual being, considered as apart from him,

* *i. e.* Matter antecedently to our perception of solidity and resistance ; the original principles previous to the undergoing ANY CHANGE which might determine it to appear under the form of either PRIMARY OR SECONDARY QUALITIES to animal senses.

must be regarded as containing in its degree, some portion of its celestial origin, though incapable of diminishing the plenitude of his infinity, or subtracting from the splendour of his incommunicable majesty.

ESSAY XIII.

ON THE ASSOCIATION OF IDEAS, AND
THE INTERACTION OF MIND AND
BODY.

ALTHOUGH an increased attention has been given to the doctrine of the association of ideas as being sufficient to account for most of the operations of mind, yet its nature has been looked upon as too simple and philosophical to require much scrutiny; whereas, that very power of association appears to me the most difficult of comprehension in nature; for how shall any given idea be supposed as associated with some other idea, which idea is not yet supposed to be in existence; one idea only present in the mind, a single simple perception, merely, cannot *suggest* an after per-

ception, for the *suggestion* is the perception of the *suggested* idea itself.

The association of ideas can truly therefore, be nothing more than a compound idea ; than one being of thought, —a conception of different qualities in unison. As a state of mind, as a given sensation, it must be immediately united with the action and with the state of the material organs which excite it, and coalesce therefore as one with it : thence merely forming one being, one given state of being.

When such relates to the putting a design in execution, it must unite within it, perception and will, and whatever material qualities co-exist with those affections of mind ; yet it is the mental qualities of knowledge, and choice, which begin and direct the motions towards the end in question.*

* *In cases of design there had been no matter nor action at all without it in each of those cases ; and therefore there had been no phenomena whatever present for our physical atheists to examine ; whereas in cases of design when these are ad-*

This united state of matter and mind, which together comprehend knowledge and will, being given, is a *given* state of conscious being, and as such must be abstractedly considered of AS AT REST; for if it were in motion it would be an *altering* state of *given* being which is a contradiction.

Therefore perception and design of *mind* begin, and *direct* motion on matter; the qualities are together; the mind perceives its design, and directs

mitted à posteriori by arguments from analogy; there must exist two species of action, 1st, The occult beginning and direction of motion on matter, in consequence of the perception and desire to attain certain ends, with which the experience of theists acquaints them in some instances, and their understandings conclude to exist when presented to them by forcible analogies; and 2ndly, those physical propellants in every step towards them which theists and atheists alike agree are necessary, as physical means to their appropriate ends, and which resolve themselves into a continuance of those motions on different independant kinds of matter, which finally result into some useful end. Theists say that such are parts of the whole causes necessary towards them; and atheists say, they are the whole that are wanted.

its motion ; but the mysterious law, or natural power which is a material property and executes the motion, is hidden from its observation, although it should react upon it, whether by pain or pleasure, in each conceivable variety.

Now as like causes have like effects, the essence of the beginning of motion amongst bodies, must I think be the same as that between mind and matter ;—motion of one body may carry motion to another,—that is, qualities must meet to interfere, but the quality which goes by the name of impulse, or impact, and resists the impenetrability of matter, must I conceive be always the same proximate cause when *considered* as a physical cause—for let it be remembered that although we are conscious of perceiving qualities, and directing motion, yet we cannot be conscious of the mere physical part of the cause which is in action, because the material part which is united to consciousness is necessarily in itself unconscious.

But there appears to me no mystery

in this union ; nor indeed in any ; all things are united, and form one whole in their mutual interactions according to their natures. Time is necessary to continue existence but not to the action of causation considered independantly of such continuity.

ESSAY XIV.

ON THE REASON WHY OBJECTS APPEAR
SINGLE ALTHOUGH PAINTED ON TWO
RETINAS, AND WHY THEY APPEAR
ERECT ALTHOUGH THE IMAGES BE
INVERTED ON THEM.

It has long been a matter of great surprise to me, that so much obscurity should hang over all attempts to explain the fact of our seeing objects single when there are two pictures of an object, one on each retina: for upon examination of the only reason why we distinguish one object from another in any case, it may be plainly perceived, that it entirely arises on account of a colour *different* from that of the object itself *forming a line of de-*

marcation around its edges; and that therefore, it would be impossible in the nature of things, but that two or twenty, or any number of objects painted upon as many retinas could be seen other than single, provided the same line of demarcation alone is painted on them. For what is it makes the visual figure of an object, but a line of demarcation between it and some surrounding object of another colour?

Now, when the sense of colour is precisely the same, however often repeated, (if the repetition be but at one and the same moment of time,) there can be *but the sense of that colour alone*; for there is *no line of demarcation presented* which can give the notion of two objects.

If there be more than one object painted upon each retina, as many will be perceived by the mind, because there will be a line of *demarcation painted between them*, but there cannot be duplicates of these perceived; because although upon each retina there is painted

a line of demarcation between two or more objects, and so the same is presented to the mind; yet *there is no line of demarcation presented between the duplicates*, which could possibly render four or more objects to the mind.

If that circumstance which alone forms a *sense* of the distinction of figure, is *not* presented upon *either retina*, how shall there be any means of its perception because there exists two retinas?

The puzzle arises from our conceiving in the imagination of the space between the eyes, existing between the images of the two objects; but this space and the figure of it does not present itself upon the retina. The two objects on the retinas, can only then have the nature of a superposition of figure; the feeling to the mind is one, and the line of demarcation which shows figure can be but one.

On the other hand, when a different mass of colouring is painted upon the two retinas, objects may be seen as two

or more though single; *because there will necessarily appear to the mind some extra colouring between the edges of the figures*, which is the only circumstance as has been said, that gives the idea of two figures of a similar kind. Dr. Reid has employed a great deal of reasoning to show *first*, that where objects are painted upon what he terms *corresponding points of the retina*, there is single vision; and when upon points which do not correspond there is double vision;—and secondly, to resolve the connection of these facts into “*an original law of our constitution.*” Now it is evident from what I have said, that when objects are painted upon corresponding points,—that is, a similar point of colouring taken as a centre in each retina;—it is a *law*, (as it is called,) i. e. it is in the very nature of things, not of our constitution, that they must appear to be single—because the circumstance which can at any time present two similar figures

does not take place, namely, the presentation of *extra colouring* between the edges of the two figures. If for instance, in any ordinary case, without reflecting upon the retinas, and the painting of images on them, two black spots are seen, they will appear thus, (••) that is an interval of a different colouring will appear between the two spots; but if 500 spots are painted of the same colour, upon as many retinas, without such an interval of different colour between them, upon *any* of the retinas, there can only be seen one spot, for then the *effect*, the sense of two spots cannot take place, because the *cause*, i. e. the different colouring between them, does not take place.

A similar mistake as to the simplicity of the phenomena takes place when the mystery is presented of objects being painted inverted on the retina, and yet seen as erect; there appears a contradiction in nature, that

on the one hand, the painting on the retina should be the cause of vision, and represent the relative position of external objects as they exist to the touch, and yet the painting of these objects be a variety from that relative position. Now the real fact is, the painting of objects, though they be inverted, does not alter the painting of their *relative* positions; the *whole* colouring of *all* within the sphere of vision, maintains precisely the same position of things towards each other: but it is the appearance of an *opposite* position of things, i. e. an opposition of the relative colouring of things, which only can yield the idea of inversion of images:—Thus a candle would appear to be *topsy turvey* upon a table, if the flame appeared to touch the table, and the bottom of the candlestick pointed upwards towards the ceiling; but if the bottom of the candlestick maintains its relative position to the table, and the flame the same relative position

to the heavens, and the table the same to the earth, and the earth the same to the table; then the *whole*,—from the earth to the heavens, being painted in an inverted position upon the retina, cannot possibly occasion any sense of inversion of images;—because the sense of the soul must be to perceive the whole relative position of objects, precisely in that relation of parts they appear to have to touch and motion.

Dr. Reid says, “ When I hold my
“ walking-stick in my hand and *look* at
“ it, I take it for granted, that I *see*
“ and *handle* the same individual object;
“ when I say that I *feel* it erect, my
“ meaning is, that I feel the head di-
“ rected from the horizon, and the
“ point directed towards it; and when
“ I say that I *see* it erect, I mean that
“ I *see* it with the head directed from
“ the horizon, and the point directed
“ towards it. I conceive the horizon
“ as a *fixed* object both of sight and
“ touch, *with relation to which* objects

“ are said to be high or low, erect or
“ inverted, and when the question is
“ asked, Why I see the object erect
“ and not inverted? it is the same as to
“ ask, Why I see it in that position it
“ really hath? or, why the eye shows
“ the real position of objects, and
“ doth not show them in an inverted
“ position?” The whole answer is too
long to quote, it may be seen, sec. 12,
chap. 6, of “ Inquiry into the Human
Mind.”

Suffice it to say, that it is an ingenious labour to account for a *fact* not appearing as a contradiction to nature, which fact never takes place—namely, “ *that the (visible) horizon is taken as a fixed place in relation to which objects are erect or inverted;*” for when the whole is within the sphere of vision, then the horizon is equally turned upon the retina; and the stick maintains on it the same relative position;—whilst the soul can only have the sense of one piece, (or canvass,) of

relative colouring, which upon motion, or touch being applied to the corresponding external varieties, will reply to those actions in the same relative proportions.

THE END.

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